

ASSESSMENT OF THE HARSTVILLE, SC AFRICAN AMERICAN CEMETERY



Chicora Research Contribution 563

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MANAGEMENT SUMMARY

The study examines two African American cemeteries in the City of Hartsville, South Carolina. The Hartsville Colored Cemetery Associated was created in 1904 and purchased a one acre tract for burial purposes. In 1931 the Mutual Cemetery Association was created, purchasing a second one acre tract adjacent to the first. In the early 1960s the two cemeteries were still well maintained and in use. However, by the 1980s the burial grounds were heavily overgrown and periodic restoration efforts met with little success. Today the distinction between the two organizations has faded and often the two cemeteries are referred to as simple Hartsville's African American cemetery.

A cemetery assessment is designed to help the cemetery caregivers to think about long-range preservation in a structured way, to better understand what is significant and why, and how it should be managed in order to preserve its historical significance and ensure the cemetery's preservation for future generations. Issues of access, roads, security, landscape maintenance, and monuments are examined. Current conditions are detailed and recommendations are offered.

This assessment identified five fundamental needs at the cemeteries. The first is the acquisition of fee-simple ownership that will allow the City to establish appropriate rules and regulations for the benefit and safety of the public. We discourage the City from attempting clean-up efforts without ownership being resolved.

The second critical issue is the development of a coordinated plan for the removal of unwanted vegetation, planting new trees, and either mulching or grassing the cemetery. This document provides such a plan.

A third requirement is for the City to convert the open ditches at the north and west edges of the cemetery to covered culverts. This is critical since the City has been using portions of

the cemetery for maintenance purposes under the mistaken impression that there are easements. No such easements exist and the maintenance work has the potential to cause irreparable damage to the cemeteries.

A fourth issue is the need to fence the cemetery to ensure its protection, establishing a clear visible boundary and controlling access. Accompanying this step we recommend the posting of rules of regulations.

Finally, making appropriate repairs to markers and monuments will improve the appearance of the cemetery and ensure these features are not lost.

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Introduction

This study examines an African American cemetery on the west side of Hartsville, South Carolina. As will be discussed, the 2 acre plot actually represents two different cemeteries operated by two different cemetery associations, one begun in 1904 and the other in 1931. Both associations eventually became inactive, maintenance lapsed, and the cemeteries became heavily overgrown. In 1972 the property containing the cemetery was annexed into the City and in 1976 City Council voted to maintain the cemetery.

No action came from this vote, however, until earlier this year when Ms. Mary Catherine Farrell, Assistant to the City Manager, contacted Chicora to arrange for this assessment.

The cemetery is identified by Darlington County as parcel 057-01-01-043, combining both of the cemeteries into one parcel they identify as the "Hartsville Colored Cemetery" (Figure 2). The Register of Deeds also lists the City of Hartsville as the owner, apparently based on the City's 1976 assumption of responsibility for the property.

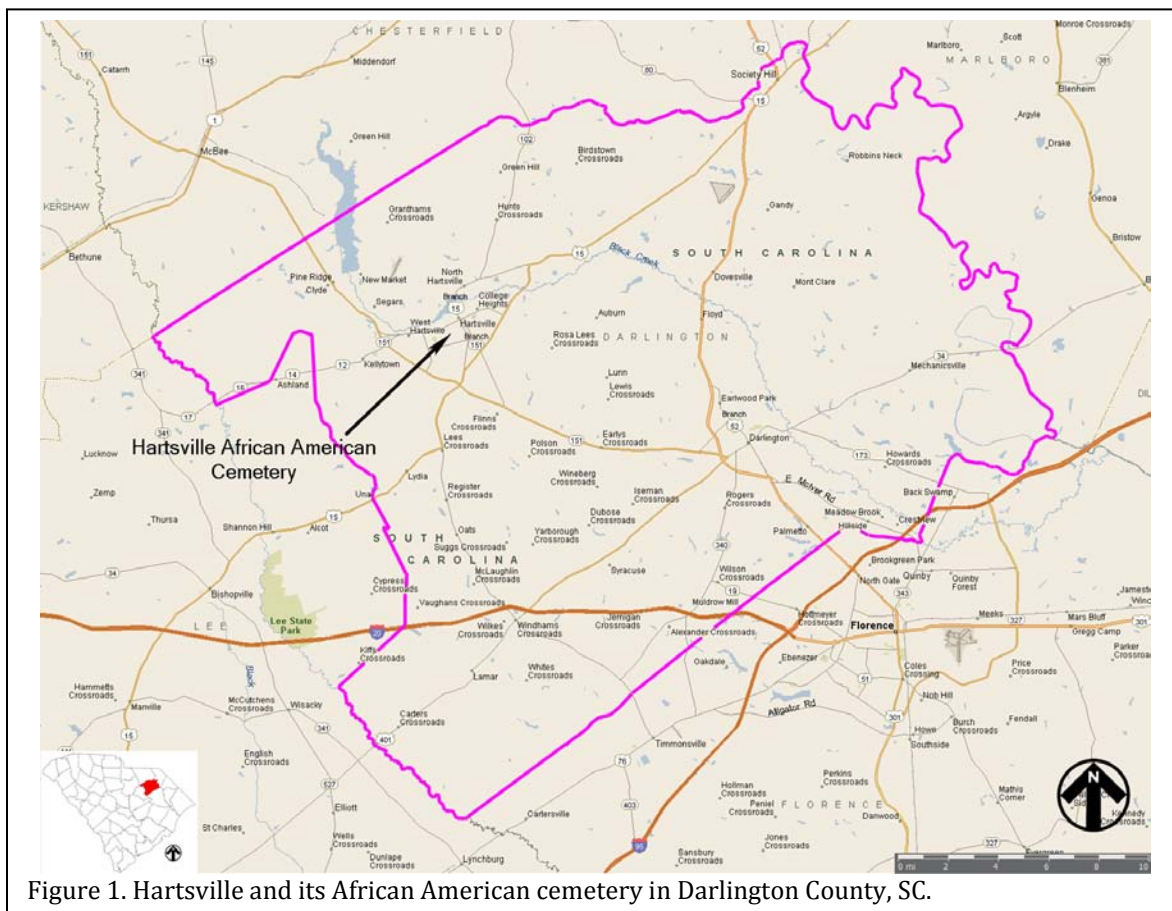


Figure 1. Hartsville and its African American cemetery in Darlington County, SC.



Figure 2. Aerial photograph of the Hartsville Colored Cemetery Association and Mutual Cemetery Association properties in the City of Hartsville, SC. (outlined in red).

Ownership of cemeteries is not generally an issue with the various county tax assessors since cemeteries are not taxable property. Therefore counties have no motivation to maintain particularly accurate records regarding burial grounds.

The cemetery has about 110 burials recorded by the Old Darlington District Chapter of the South Carolina Genealogical Society, although we expect a great many more burials are present, but were never marked or were marked with impermanent objects. There are no maps or burial registers known to exist for either cemetery.

The Project

Although the City Council voted to assume maintenance of these cemeteries in 1976, it was not until this project that the City moved to explore how best to preserve these cemeteries, including approaches to control vegetation,

reclaiming the cemeteries, potentially as passive parks.

This assessment was conducted on July 21, 2015 by the author, Dr. Michael Trinkley. The work involved an on-site meeting with Mary Catherine Farrell, Assistant to the City Manager; James Clemons, Public Service Director; Dana Hamilton, Public Works Manager; Lori Horton, Environmental Services Manager; Nick Johnson, Streets and Grounds Supervisor; and Johnny Andrews, member of the Hartsville City Council. There was a brief orientation at the cemetery itself and afterwards the work included a more careful inspection of the overall condition. At the time of this assessment the cemetery was very heavily overgrown, allowing only a few areas to be examined in any detail.

This document may be viewed as a “comprehensive or master plan” in so far as it is a long-range plan that provides a policy framework

to guide preservation planning decisions. We view long-range as ideally five years, believing that after that length of time progress should be evaluated and needs of the cemeteries re-assessed. This document is not, however, a business, financial, or fundraising plan, although each of those topics impacts preservation and will be at least briefly examined.

This preservation plan incorporates issues of not only maintenance of the landscape, but also security, pedestrian and vehicular access, vandalism, and a review of critical conservation issues associated with monuments and graves.

The presence of a plan, however, does not guarantee improvement. This document is a “road-map” for preservation issues, but it is incumbent on the City Council to not simply implement its recommendations, but to embrace them. All of the recommendations will require funding from the City of Hartsville; moreover a long-term commitment is essential to ensure that progress is not wiped out by future neglect. During our on-site meeting City representatives assured me that the City was prepared to make this commitment.

Why Preserve?

Preservationists may take the question “why preserve” for granted; yet it remains an important issue, especially in the current economic climate. It is useful to provide at least some brief discussion of why preservation of Hartsville’s historic African American cemeteries is a worthwhile – even critical – goal for the city and its citizens.

Cemeteries are different from all other types of historic sites. Most fundamentally they contain the physical remains of past generations and are considered sacred, consecrated ground. The right to a decent burial has long been recognized in common law. So, too, is the duty to continue a cemetery once begun. Thus a municipality or other organization, by opening a cemetery, creates a duty through its officials to execute the trust and maintain the cemetery for

the benefit of the public. While the two cemetery associations which began these burial grounds did not fulfill this obligation, the City Council has recognized the importance of this property and agreed to take on that obligation.

Cemeteries are also artistic sites, such as a sculpture garden or outdoor museum, which contain a collection of three-dimensional artifacts. The monuments trace changes in both designs and social attitudes toward religious and moral views, death and eternity. They provide examples of the largely disappeared art of stone carving, illustrating numerous famous artisans. They are permanent collections, but must be considered finite and irreplaceable.

These collections are archives, having the same value and importance to the community as any paper archives. They are storehouses of genealogical information that often cannot be identified through any other means. They provide information concerning both the individual and collective pasts.

Sometimes it is thought that once a genealogical assemblage of the cemetery is collated and published, archival concerns have been fulfilled. This is incorrect. Few such compilations include detailed photographs and full transcriptions, including verses.

In addition, part of this archive is the archaeological and bioanthropological information the cemetery contains – even if the burials are never excavated. The graves and tombs can provide information on mortuary behavior, such as the coffins and hardware chosen by relatives. The human remains can provide information on diet, disease, and burial practices – information that is available from no other source.

Cemeteries may also be scenic landscapes, similar to parks or open spaces, except they are much more. They are far more fragile and susceptible to damage and deterioration. As such they require distinctly different care.

Thus, cemeteries are important social, historic, architectural, and archaeological artifacts. When there is little else physically remaining of a community's earliest history, there will often be a cemetery that provides a unique tie to the community's collective past that would otherwise be lost.

Thus, we see a broad range of reasons why we should be concerned about the preservation of these cemeteries. We argue, in fact, that the significance of cemetery preservation is actually greater than the sum of its parts.

This is particularly true of African American burial grounds since there is almost no written history of this group in most communities. Cemeteries such as these provide information on the families, kinship patterns, and activities of a marginalized group during the period of Jim Crow and segregation.

Preservation Fundamentals

Preservation is not an especially difficult concept to grasp, although the key principles are not always clearly articulated. The fundamental concepts are well presented in the Secretary of the Interior's Standards for Preservation (see Table 1).

This document reminds us – at least at a general level – of what caregivers need to be thinking about as they begin a cemetery preservation plan. Those responsible for the care of Hartsville's early African American cemeteries should be intimately familiar with the eight critical issues it outlines.

For example, all other factors being equal, a cemetery should be used as a cemetery. Until the caregivers are able to do what needs to be done, it is their responsibility to make certain that the site is preserved – it must not be allowed to suffer damage under their watch.

Caregivers must work diligently to understand – and retain – the historic character of the cemetery. In other words, they must look at

the cemetery with a new vision and ask themselves, "what gives this cemetery its unique, historical character?" Whatever it is, those undertaking its care and preservation become the guardians responsible for making certain those elements are protected and enhanced (whether they are particularly appealing to the caregivers or not).

Whatever conservation efforts are necessary must be done to the highest professional standards; these conservation efforts must be physically and visually compatible with the original materials; these conservation efforts must not seek to mislead the public into thinking that repairs are original work; and the conservation efforts must be documented for future generations. If the caregivers aren't conservators, it is their responsibility as the stewards of the property to retain a conservator appropriately trained and subscribing to the Code of Ethics and Standards of Practice of the American Institute for Conservation (AIC). If volunteers are to be used, they must be thoroughly trained and carefully supervised to ensure that correct methods are used.

The Secretary of the Interior reminds those responsible for the resources that each and every cemetery has evolved and represents different styles and forms. Few, if any, cemeteries are "frozen in time."

It is the responsibility of care-givers to care for all of these modifications and not seek to create a "Disney-land" version of the cemetery, tearing out features that don't fit into their concept of what the cemetery "ought" to look like.

Likewise, caregivers are reminded that there will be designs, monuments, and other features that characterize the cemetery – and the caregivers are responsible for identifying these items and ensuring their preservation. Caregivers must be circumspect in any modifications, ensuring that they are not destroying what they seek to protect (a problem with virtually all "restoration" efforts).

Table 1.
Secretary of the Interior's Standards for Preservation

1. A property will be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spaces, and spatial relationships. Where a treatment and use have not been identified, a property will be protected and, if necessary, stabilized until additional work may be undertaken.
2. The historic character of a property will be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate, and conserve existing historic materials and features will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. The existing condition of historic features will be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive feature, the new material will match the old in composition, design, color, and texture.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

Before acting, those responsible for preservation are required as good and careful stewards to explore and evaluate the property, determining exactly what level of intervention – what level of conservation – what level of tree pruning – is actually necessary. And where it is necessary to introduce new materials – perhaps a pathway – into the cemetery, they must do their best to make certain these new elements are not only absolutely necessary, but also match the old elements in composition, design, color, and texture.

In other words, if the cemetery has dry laid rock walls, they would be failing as good stewards if they allowed synthetic stone on concrete masonry units – especially if the only justification was because new wall was less expensive or easier to maintain.

Where conservation treatments are necessary, the Secretary of the Interior tells stewards that they must be the gentlest possible. However phrased – less is more – think smart, not strong – caregivers have an obligation to make certain that no harm comes to the resource while under their care. And again, one of the easiest ways to comply is to make certain that caregivers retain a conservator subscribing to the ethics and standards of the American Institute for Conservation.

Finally, the caregivers must also recognize that the cemetery is not just a collection of monuments and the associated landscape – the cemetery is also an archaeological resource. They must be constantly thinking about how their efforts – whether to repair a monument, put in a parking lot, or resurface a path – will affect the archaeological resources – archaeological resources that are the remains of people buried at the cemetery by their loved ones.

These are especially critical issues for the

Hartsville cemeteries. The cemeteries have been fighting gradual – and at times exponential – deterioration since at least the late twentieth century.

A Brief History

Enslaved African Americans dominated Darlington County's population by 1860 and in 1900 blacks still accounted for 59.6% of the county's population. There was not, however, a cemetery for black citizens other than those associated with the area's black churches. In 1904 African American citizens formed the Hartsville Colored Cemetery Association and purchased 1 acre of property from Julia W. Bacot for \$100 (Darlington County Register of Deeds, DB 66, pg. 37).

Bacot, at the time of the 1900 census, was a 60 year old white widow with one daughter living with her. She owned her home on Third Avenue in Hartsville and the 1880 census suggests that she and her husband, listing themselves as planters, were fairly wealthy for the period.

The metes and bounds were imprecise, but identified the acre as being located at the northwest corner of her 80 acre tract.

The names of the association's trustees were listed in the deed as D.S. Hammond, Sam Poole, Mack Dorrity, A.J. Ketter, A. Sams, Alex Wright, Moses Williams, and J.S. Harrison. Death certificates were identified for Poole, Dorrity, Ketter, Sams, Wright, and Harrison. All were buried in the cemetery they helped create and three (Poole, Wright, and Harrison) were farmers. Ketter was a carpenter, and Dorrity was a merchant. At least four were born slaves.

Three notices of the "Hartsville Burial Association" annual meeting were published in April 1920, 1921, and 1922, suggesting that at least in the early 1920s the organization was active and had dropped "Colored" from its name.

It wasn't until 1909 – five years after the establishment of an African American cemetery by

an association, that the Hartsville City Council established the community's segregated white cemetery, known as Magnolia. It took another seven years, however, for the cemetery to be laid out, with the first burial occurring in 1917.

In 1931 a new organization, identified as the Mutual Cemetery Association, purchased an additional acre to the east of the original cemetery for \$350 from Dr. Brown G. Pitts, a Darlington County physician and farmer who by this time owned the Bacot property (Darlington County Register of Deed, DB 176, pg. 388).

The trustees for the new organization were identified as Frank Goodin, S.J. Ramsey, W.M. Smith, G.W. Johnson, and Dennis Wright. Death certificates for four of these individuals have been found and the four were buried at the "Hartsville Cemetery." Three of the four (Goodin, Ramsey, and Wright) were farmers. The fourth, George W. Johnson, was a black physician.

The metes and bounds are interesting since they reveal that by this time, less than 30 years after it began, the Hartsville Colored Cemetery Association property was identified only as the "old colored cemetery." In addition, at least by this time there was a ditch separating this property from the owner to the north. Clearly the cemetery property runs up to this ditch.

A 1951 plat of the Pitts property (Darlington County Register of Deeds, PB 16, pg. 81) fails to identify the cemetery that he had sold 20 years earlier, showing only the 1904 tract which had already been sold prior to his acquisition of the farm. It would take additional research to ascertain why this plat did not show the more recent burial ground. Regardless, neither Marion Avenue to the east nor South 9th Street has been cut through the cemetery. The plat reveals that the original 1 acre boundaries extend to the ditch line on both the north and west.

It was in the 1950s that the City of Hartsville established its city-owned African American cemetery, known as Greenlawn, situated about 0.4 mile south-southeast of the first

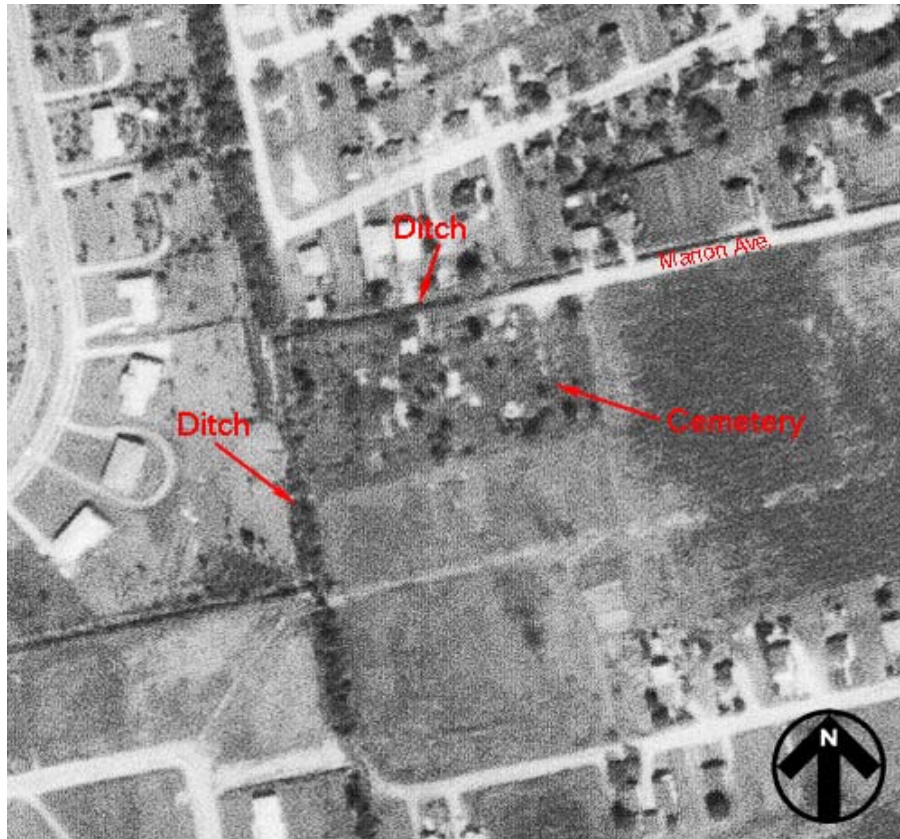


Figure 3. September 1964 aerial showing the two African American cemeteries in Hartsville, SC.

African American burial grounds used by the Hartsville Colored Cemetery Association and the Mutual Cemetery Association.

The earliest aerial photograph we identified for the Hartsville Cemetery property dates to 1964, but it shows a largely clear and well maintained cemetery. There is no clear distinction or boundary between the two African American cemeteries, suggesting that maintenance of the two was not being handled differently.

The ditch to the north is distinctly shown as a dark (vegetative) line and the cemetery extends to the ditch. By this time Marion Avenue extended to, and slightly within, the cemetery, clearly being the preferred access point. No road or open area,

however, extends along the ditch edge as it does today. Based on the vegetation the ditch along the western edge of the cemetery was in place by this time, but it is unclear if graves extend to the ditch (we suspect they do).

The aerial photograph shows a number of large shade (evergreen) trees scattered across the cemetery. Otherwise ground cover appears to

be similar to the pasture areas to the south and southeast, suggesting a low grass.

Examination of subsequent aerial photographs reveals that by the late 1970s the cemetery's maintenance had declined

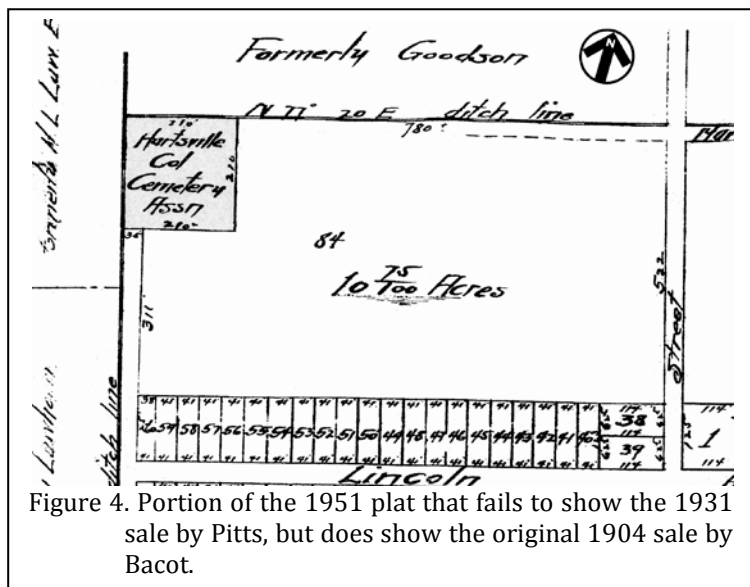
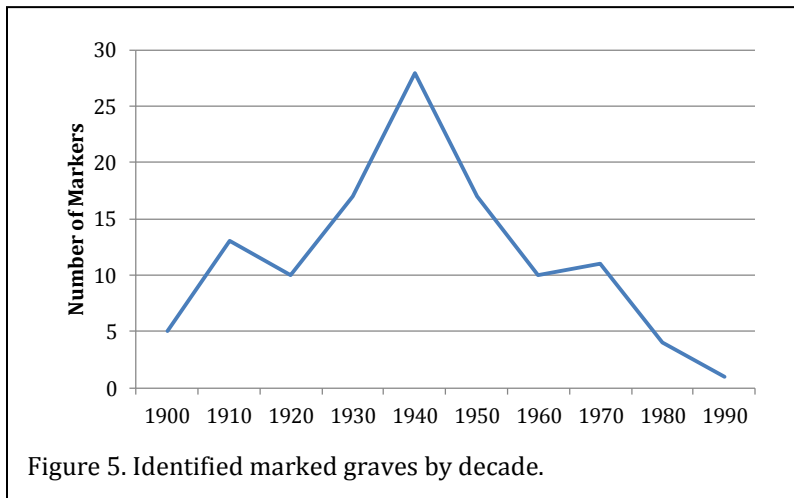


Figure 4. Portion of the 1951 plat that fails to show the 1931 sale by Pitts, but does show the original 1904 sale by Bacot.

INTRODUCTION

Table 2.
Identified Marked Burials (Old Darlington District Chapter of the South Carolina Genealogical Society 1993, 1997 and Darlington County Historical Commission). Brackets are used to indicate dates obtained from death certificates or other sources.

Last Name	First Name	Birth	Death	Last Name	First Name	Birth	Death
Addison	Willie			Manning	John	1838	1912
Bacote	Pansy	1927	1943	Manning	Luvinia	1860	1931
Blackmon	Nannie Jackson	1889	1971	Marine	Henry E.	1942	1948
Brailey	Besty		1921	Mclver	Beulah	[1890]	1912
Brunson	Infant		1914	Mclver	George A.	1878	1928
Brunson	Louise	1859	1940	Mclver	Martha	1867	1938
Brunson	Mary F.	1880	1943	Morgan	Avanelle G.	1905	1939
Brunson	Thomas L.	1880	1943	Moseley	Regina L.	1963	1963
Bryant	Robert	[1843]	1917	Mumford	Fred	1870	1941
Buchanan	Ruth J.	1900	1912	Pate	Robert	1940	1976
Burno	Boykin	1914	1971	Peterson	Henry	1911	1952
Burno	Edieth	1915	1949	Peterson	Isabellar		1950
Burno	Edith	1895	1980	Peterson	Julia	1860	1955
Burno	W.	1881	1958	Phillips	Mildred	1924	1946
Butler	Robert C.	1918	1954	Pool	James	1915	1935
Butler, Jr.	Henry	1914	1944	Poole	Roosevelt	1905	1906
Campbell	Alice R.	1888	1950	Poole	Samuel	1844	1916
Campbell	Joseph	1883	1935	Poole	Rufus Allen	1904	1972
Campbell	Pinckney	1872	1931	Pooler	Henry J.	1887	1957
Coe	Robert L.	1918	1971	Preston	Henry F.	1911	1952
Collins	Samuel		1972	Prince	Caesar	1870	1938
Cooley	Hattie	1878	1942	Prince	Louise W.	1873	1941
Dobson	Ulysees	1921	1953	Prince	Nathan	1902	1976
Ellis	David	1949	1994	Prince	Walter	1895	1965
Ellis	Helen Louise	1954	1960	Richardson	Luther	[1896]	1933
Ellis	Rosa Lee	1911	1980	Roberson	Leo	1907	1908
Ellis	Willis L.	1910	1980	Robinson	Charlie L.	1885	1950
Frazier	Willie	1916	1966	Robinson	Nellie	1906	1920
Funches	Wilford Perry	1905	1918	Russell	George	1878	1945
Gandy	Brooks R.	1872	1930	Russell	Hattie		1962
Gandy	Mary E.	1883	1932	Russell	Willie		1943
Gardner	Jack	1913	1964	Sams	Channie	[1867]	1904
Grant	Dewey	1912	1970	Smith	Frank A.	1911	1945
Green	Howard	1877	1936	Smith	William		
Gregg	Charlie L.	1894	1952	Spann	Jerome C.		1930
Gynes	B.	[1853]	1924	Stephson	Edith		
Harris	Raymond	1919	1949	Stokes	Moline	1886	1927
Heatley	Benjamin	1901	1953	Taylor	Mary	1868	1955
Henderson	Jacob D.	1879	1954	Taylor	Prince	1859	1931
Hill	Inez	1900	1947	Thomas	Alexander		1937
Hunter	Cynthia P.	1898	1959	Thomas	Clarence		1941
Hunter	Jack	1876		Thomas	Eldine	1916	1962
Hunter	Robert L.	1925	1972	Thomas	James	[1849]	1924
Jackson	Anna A.	1880	1947	Thomas	Willard A.	1907	1910
Jackson	Elizabeth	1899	1977	Turley	Sam	1870	1945
Jackson	George	[1845]	1915	Venson	John	1938	
Jackson	James	1893	1946	Williams	Moses		1912
Jackson	Oliver	1880	1942	Williams	Virginia	1885	1959
Joe	Mary			Williamson	Hattie	1892	1988
Johnson	Ethel	1919	1967	Williamson	Traxler	1885	1965
Johnson	George W.	1890	1948	Williamson	W.	1885	1965
Johnson	Jack	1852	1925	Wilson	Henry	1908	1944
Johnson	James	1916	1947	Wingate	Vernice	1926	1956
Kennedy	Ernest	1895	1949	Wright	Alex	1842	1917
Ketter	Julia H.	1869	1917	Wright	Dora		
King	A.D.	1869	1908	Wright	Earnest	1930	1933
LaFayatty	Aaron	1885	1947	Wright	Ferby	[1853]	1913
Mack	Joe	1894	1970	Wright	James	1913	1932
Manning	Edward	1882	1947	Wright	John	1920	1945
Manning	Floyd	1898	1909	Wright	Lizzie	1853	1926
Manning	Jesse		1923	Wright	Nelson	1853	1930
				Zimmerman	W.L.	1872	1921



and by the early 1990s the tract was entirely wooded.

During the City Council meeting of July 13, 1976, the Council not only annexed the cemetery, but also agreed to “maintain the Cemetery but not sell any more grave sites” (City of Hartsville, Regular Council Meeting, July 13, 1976). While the agreement to maintain the cemetery is clear, the remainder of the agreed upon motion is less so. Additional research would be needed to determine if the City itself had been selling plots; otherwise, who was the City directing to stop the sale of plots? Regardless, the presence of commercial monuments post-dating 1976 clearly reveals that the City not only failed to maintain the cemetery, but also failed to halt the sale of plots. Additional research is also needed to determine who was selling these plots, at what cost, and where the resulting funds went.

Less than a decade later, on November 4, 1987 City employee Wilmont Berry prepared a memo for City Council recounting the history, including the date of annexation, but failing to mention the City’s commitment to care for the property. Regardless, he proposed that the City clean the cemetery, install a fence, fill-in sunken graves, mow the cemetery at least twice a year, and prohibit any additional burials. It appears that City Council took no action on any of these recommendations.

By 1997 Councilwoman Graham formed

the Hartsville Negro Cemetery Restoration Committee that sought to locate families and generate a volunteer effort to maintain the cemetery. It appears this effort was unsuccessful.

At some point after 1997, City Attorney Martin S. Driggers, Sr. prepared an undated memo for the City Council, noting that, “for many years, City Council has struggled with the question of what to do about the old African-American/Negro cemetery at the end of Marion Avenue. . . .” The

memo offers a brief review of the history. Mr. Driggers dismissed as impractical any effort to clear the title given the vast number of descendants. He noted that the City could condemn the property to obtain control, but for unstated reasons seems to dismiss that option as well. Instead, he recommended maintaining the cemetery using the authority given municipalities to preserve and protect “abandoned cemeteries” (South Carolina Code of Laws §6-1-35).

He recommended that City Council should “only obligate the City for as long as Council determines it reasonably necessary to restore and/or maintain this privately owned cemetery” apparently being very concerned about using public monies.

The irony of the City of Hartsville creating a whites-only cemetery in 1909, while being reluctant to spend “public” money to care for an African American cemetery didn’t seem to occur to Mr. Driggers. Of course, there is no time limit for maintenance – it is, by its nature, on-going in perpetuity. It would therefore have been problematic if the City acted on Mr. Driggers’ recommendation and limited the extent of their maintenance activities.

There are 123 marked burials identified in the cemetery, based on a series of three surveys, including one conducted in 1976 by the Darlington County Historical Commission and two

subsequent projects by the Old Darlington Chapter of the S.C. Genealogical Society (Table 2). Of these, only two burials post-date 1980 and Figure 5 reveals that marked graves peak in 1940, after the second acre tract was purchased. The City reports a few additional burials since the 1990s.

In addition to the 123 marked graves, Johnny Andrews has identified an additional 45 burials in 1915 and 1916 using death certificates. Given that many African American deaths did not have death certificates filed, the number of burials throughout the cemetery's history almost certainly exceeds even the number of filed death certificates.

The Cemetery Location, Setting, and Context

These cemeteries, once at the southwestern edge of Hartsville, are today surrounded by various housing developments. All are zoned Residential and there is no commercial or industrial impingement on the cemetery (Figure 6).

Other factors that assist in the preservation of the cemetery include that its location is in area of very limited vehicular traffic, essentially being located on a dead end road. There is little visual or noise impact on the cemetery and the surrounding yards, while perhaps somewhat overgrown, provide buffer.

In the current City of Hartsville Master Plan, the vicinity of the cemetery is identified as a "future redevelopment area." Presumably contributing to this are a number of boarded-up houses, as well as the abandoned Lincoln Village project. In spite of the issues this area faces, it is not identified as a "primary focus area" in the

document.

A more useful overview is the *South Hartsville: Heritage Alive Neighborhood Revitalization Plan* prepared by a Community Planning Assistance Team of the American Planning Association. This document provides a critical view of the current neighborhood situation, as well as broad recommendations.

A number of the issues raised by this document were also noted specifically for the cemetery, including the impact of the abandoned Lincoln Village, the use of the immediate area as a cut-through for the Hartsville High School on Lewellen Avenue, the inappropriate floodwater management, and "The Jungle Effect." It was particularly disheartening to discover that the neighborhood feels isolated, neglected, overlooked, and abandoned. It was pointed out to

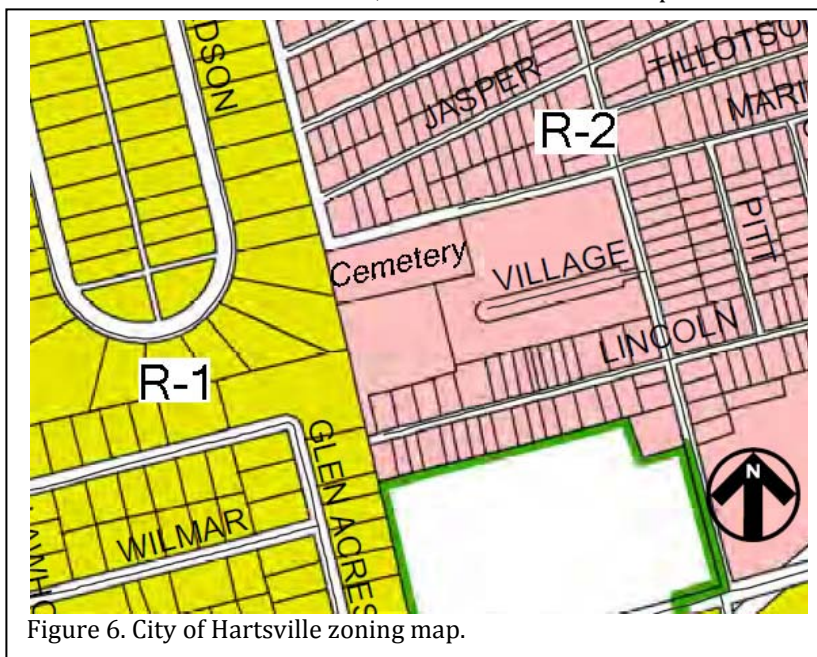


Figure 6. City of Hartsville zoning map.

me that the area used to be the center of a thriving African American business district, but the area is now struggling. All of these aspects seem to parallel the conditions observed at the Hartsville Cemetery.

The cemetery does not currently have any means of vehicular entry. The historic review

suggests that while there may have been parking within the cemetery for a hearse or visitation, there were never any roads in or through the 2 acre tract.

Darlington County includes a small area of the Carolina Sand Hills, but is primarily within the South Atlantic Coastal Plain physiographic region. This is an area of rolling and hilly topography that is often difficult to distinguish from the topography of the Sand Hills or even the lower Piedmont. Elevations range from 500 feet above mean sea level (AMSL) to 200 feet AMSL. In the vicinity of the cemeteries the elevation is about 230 feet AMSL. The soils are typically well drained, unconsolidated marine deposits of light colored sands and kaolin clays. The geology consists of cross-bedded sands, gravel lenses, and impure clays.

The natural vegetation is primarily Oak-Hickory-Pine forest, composed of medium tall to tall forests of broadleaf deciduous and needleleaf evergreen trees (Küchler 1964). The major components of this ecosystem include hickory, shortleaf pine, loblolly pine, white oak, and post oak. The cemeteries, however, are dominated by an urban environment of grass, pines, oaks, and much herbaceous understory vegetation.

It is only with some effort that the original rural nature of these two cemeteries may be appreciated. They were originally located beyond the city limits and in an area that was being heavily farmed.

Black Creek, running north of Hartsville and separating it from North Hartsville, was “the pride of the County.” The same postbellum account explained that its route:

has very little . . . swamp, its banks being mostly high and dry, and shaded by stately trees. Its bottom is of hard fuller’s earth,

and it is fed mainly by innumerable springs of pure and cold water. The riparian lands of this stream are among the most healthy in the State; and though not unfit for the cultivation of cotton, are distinguished in the County as fine grain lands (Committee on Immigration 1874:10).

Today, no clear sense of the cemeteries’ original design or burial arrangement can be ascertained. With clearing and careful mapping of graves, however, we anticipate that they both will be dominated by a geometric arrangement, perhaps broken by areas where burials were primarily based on kinship.

The cemeteries are situated at the eastern

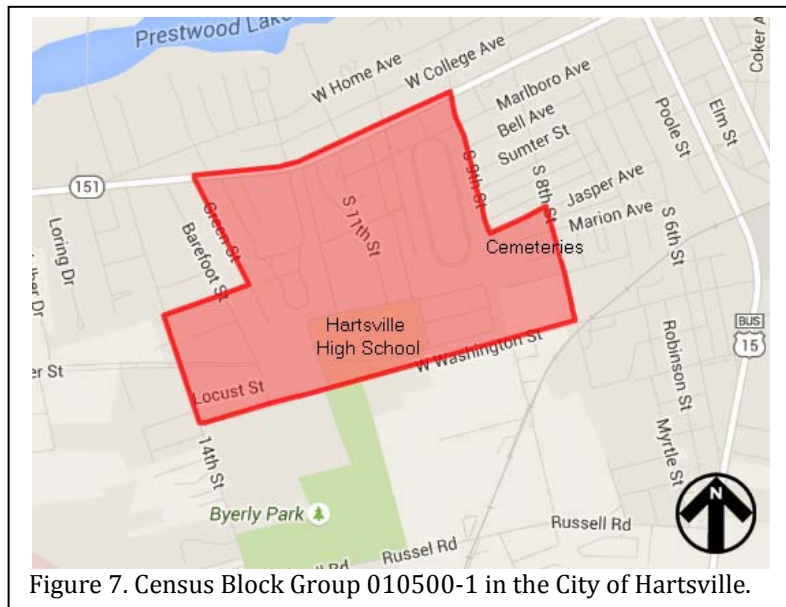


Figure 7. Census Block Group 010500-1 in the City of Hartsville.

edge of Census Block Group 010500-1, bounded to the north by SC 151 and to the south by West Washington Street. The boundary to the east includes 9th Street, Jasper Avenue, and 8th Street. On the west the boundary included Green, Oak, and 14th streets (Figure 7). The value in examining these areas is that they surround the cemetery and can affect it in terms of community support.

Although the area immediately surrounding the cemetery is predominately African American, this Census Block Group is primarily white (73.3%), consisting of only 25.5 African Americans. The median household income is \$57,212 and the median house price is \$109,100. This stands in extreme contrast to Census Block Group 010700-1 immediately to the east. There African Americans comprise 98% of the population. The median household income is \$17,500 and the median house price is only \$59,500.

The median age in Census Block Group 010500-1 is about 43 years, nearly identical to the area to the east. Yet the per capita income is less than half that in Census Block Group 010500-1 -- \$24,830 compared to only \$11,998. Moreover, while only 6.22% of the families in Census Block Group 010500-1 are at or below the poverty level, nearly a third fall into this category in the neighboring Census Block Group.

In Census Block Group 010500-1, about 80% of the houses are occupied. Slightly over 57% are owner-occupied, nearly 23% are rented, and a fifth are unoccupied. The majority of the rental units have a monthly rent of \$700 to \$999. In contrast, in Census Block Group 010700-1, only 75% of the housing units are occupied; 41% by owners, 35% by renters, and nearly a quarter are unoccupied. Most rentals are \$300 to \$499.

Looking at all of Hartsville, about 46% of the community is African American. Only about 48% of the housing units are owner-occupied, compared to a state-wide average of 69%. Hartsville has a relatively well educated population, with 84% being a high school graduate or higher and nearly a third having a bachelor's degree or higher. The mean household income is \$29,956, compared to a state-wide average of \$44,779 and the percent of individuals in Hartsville at the poverty level is 22.8%, compared to 18.6% state-wide.

In 2013 Hartsville had 35 full-time law enforcement officers, representing 4.06 officers per 1,000 residents. Nevertheless, we are told that

at any one time there are only three officers on routine patrol for the entire city of nearly 7,800.

Hartsville's property crime rate (property crimes are most likely to affect cemeteries) is reported to be 10,055 per 100,000. In comparison, South Carolina's property crime rate is only 3,624 per 100,000 and the national rate is even lower at 2,731 per 100,000. The overall crime rate (violent and property) in Hartsville is 260% higher than the national average. The City of Hartsville reports that in the past 120 days, 122 crimes have occurred within a 0.5 mile radius of the cemetery.

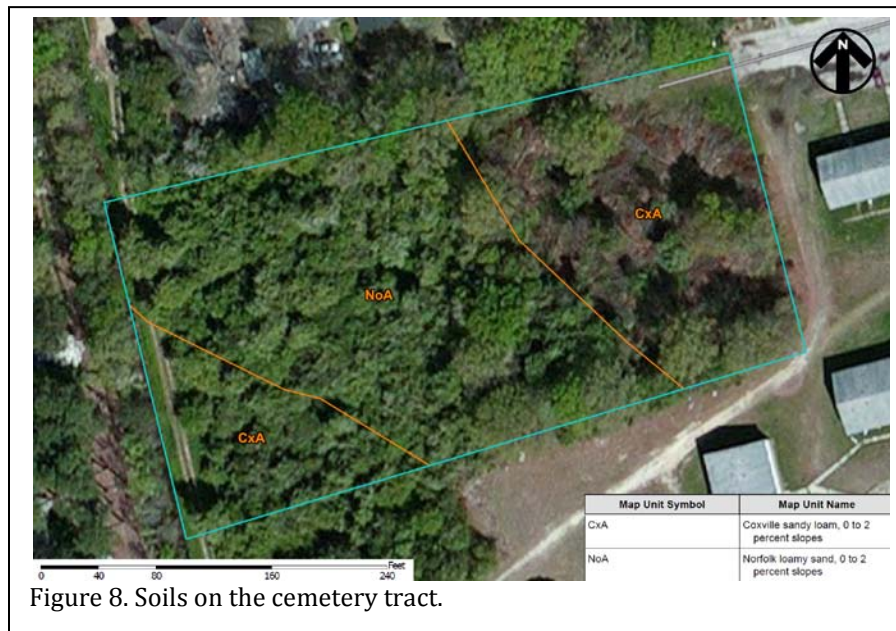
In the 2013 Point in Time survey of homeless, 22 homeless individuals were identified (0.4% of the state total). City representatives do not believe that they have a significant homeless issue in the cemeteries at present.

The picture that emerges is a cemetery situated between two very different areas – one predominately white and relatively wealthy and the other predominately African American and impoverished. Crime is a significant issue; homelessness (in terms of impact on the cemetery) is not.

Factors Affecting the Landscape Character

As previously discussed, Hartsville is in South Carolina Upper Coastal Plain. The topography, while overall rolling, is generally level.

Only two soil series are present on the cemetery tract (Figure 8). At the northeast and southwest corners, comprising about 48% of the parcel, is Coxville sandy loam. This series consists of very deep, poorly drained, moderately slowly permeable soils that formed in clayey marine sediments on the Coastal Plain uplands. The Ap horizon is usually about 0.8 foot in depth and consists of a dark gray (10YR 4/1) sandy loam. Below this is a Btg1 horizon to a depth of about 1.7 foot is a gray (10YR 6/1) sandy clay. The Btg2 horizon consists of gray (10YR 5/1) sandy clay to a depth of about 3 feet. Below that is the Btg3



horizon of (10YR 5/1) sandy clay. The soils are acidic and have low organic matter and fertility.

In the center of the tract is the Norfolk sandy loams. These soils, while also very deep, are distinct from the Coxville series in that they are well drained and moderately permeable. The Ap horizon, about 0.6 foot in depth, is a grayish brown (10YR 5/2) loamy sand. It rests on an E horizon of light yellowish brown (10YR 6/4) loamy sand to a depth of about 1.3 foot. The Bt1 horizon is found to 3.5 feet and is yellowish brown (10YR 5/6) sandy clay loam.

The cemetery is not within a 100-year flood zone, although drainage ditches are found to the north and west.

Hartsville is characterized by mild winters, hot summers, and abundant rainfall. Seasonal, and even daily, variations in humidity can be significant. The average annual relative humidity is 70%. The average annual temperature is 63°F. Winter temperatures range from the low 30s to the high-50s, while the summer temperatures are in the high 80s and low 90s.

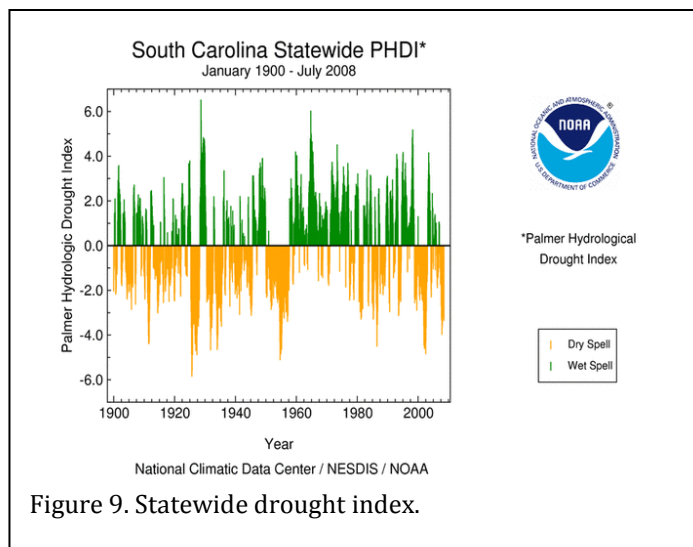
Typically abundant precipitation is

distributed fairly evenly throughout the year, with an average annual precipitation of about 47 inches. Figure 9, however, reveals that South Carolina exhibits considerable potential for drought. On a finer scale, Darlington County is currently in a moderate drought. Moreover, there is a significant increasing trend toward drought conditions in the Darlington area.

Darlington County has had 22 tornadoes since 1961, including 16 with an F1 or higher rank. One of these, on April 12, 1961

occurred on the south edge of Hartsville.

The area has an average growing season of about 246 days, although this will vary by specific location, with low areas often evidencing late frosts. Figure 10 shows that all of Darlington County is situated in Plant Hardiness Zone 8a, where the minimum temperatures are expected to be between 10 and 15°F. Since this “new” planting zone map was released the zones have shifted



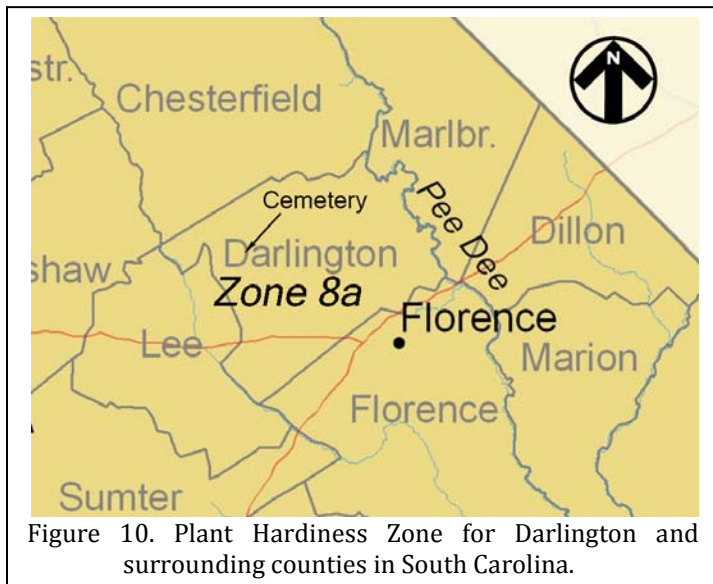


Figure 10. Plant Hardiness Zone for Darlington and surrounding counties in South Carolina.

even further northward, potentially placing Darlington County in Zone 8b.

This is an area where a limited set of the Hot Climate Grasses, such as Bermuda, Centipede and Zoysia, perform best. The major limiting factors are the propensity for draught and the presence of sandy soils.

Administrative Issues

A final topic involves administrative issues associated with the 1904 Hartsville Colored Cemetery Association and the 1931 Mutual Cemetery Association. According to the information provided, both associations are “dead,” leaving the ownership of the 2 acres in limbo.

As a general rule we strongly discourage governmental entities from assuming even maintenance of properties they do not own. Doing so establishes a governmental (in this case, municipal) responsibility over property which it cannot control. The City of Hartsville, for example, would not be able to stop burials from occurring on the property once cleaned up and this could result in not only significant additional maintenance issues, but may also result in damage to existing burials.

Consequently, we view it as essential for the City to obtain fee-simple ownership of the cemeteries, allowing City Council to establish, and enforcement, meaningful rules and regulations.

We do not believe the option provided by South Carolina Code of Law § 6-1-35 that permits expenditure of public funds to maintain an abandoned cemetery is appropriate since it does not provide the City with the ability to establish rules and regulations. Consequently, the funds expended and the improvements made may be short-lived.

The City attorney, Mr. Martin S. Driggers, Sr., noted that attempting to identify all of the successors of the two associations would “likely be an impossible task.” Nevertheless, South Carolina Code of Law § 15-67-10 et seq. provides a mechanism to quiet title. We are familiar with at least one situation involving a defunct African American cemetery in which the title was quieted by relatively simple court action.

We recommend that the City of Hartsville examine this option in greater detail since we believe that it offers a reasonable approach for a cemetery deed to be issued to the City by a court having jurisdiction.

Those desirous of the City maintaining the property should be expected to assist in this process. For example, it may be useful for one or two descendants of each association’s trustees to provide the City title, establishing the City’s standing to quiet the title.

Once the City has clear title to the property it will be possible for City Council to officially close the cemetery to all future burials (a critical action since there are no records identifying where existing burials are located) and establish reasonable rules and regulations for the public enjoyment of the property. It will also allow the City to spend reasonable resources for the recovery and long-term protection of this historic

resource.

Recommendations

- Caregivers should carefully review the Secretary of Interior Standards, focusing on a fuller understanding of how daily operations may affect the long-term preservation of the cemeteries. Based on this review adjustments should be made to current policies and procedures. A presentation should then be prepared for the City Council.
- Historic research is not a critical component of preservation efforts, unless there is a desire to place the cemetery on the National Register. Should a National Register nomination be desired, it will be helpful to more fully explore the diversity of individuals buried in the cemetery, as well as the history of the two organizations known to have purchased the property.
- The City of Hartsville should seek means to quiet the title of the two associations to the property and obtain fee simple ownership. This alone will allow the City to establish meaningful rules and regulations regarding the future use of the property.

Roads and Pedestrian Issues

Vehicular Access and Circulation

In the earliest available aerial photograph (Figure 3) it appears that Marion Avenue extended slightly onto the cemetery property and incorporated a turn-around. This suggests that it was Marion Avenue which was used for burials at the cemetery, the turn-around allowing hearses more convenient egress. The 1964 road appears to be dirt, as does Marion Avenue.

By 2014 Marion Avenue had been paved, with a wider gravel or soil shoulder on its north side, providing additional parking for the houses. The road into the cemetery was not paved, since there was no easement and the cemetery was private property. The gradual decline in maintenance resulted in the loss of the road into the cemetery and the associated turn-around.

Today there is a rough tractor path running through the north edge of the cemetery used for the maintenance of the ditch on the cemetery line. This path is not suitable for driving, nor should it be since it is on cemetery property and likely incorporates graves. There are, in fact, several marked graves at the southern edge of this tractor path.

This means, of course, that today there is no convenient parking specifically designated for those visiting the cemetery. Since the adjacent Lincoln Village is abandoned, we presume that this area is typically used.

We understand that the City is seeking to convert Lincoln Village into a park. If so, we recommend that two cemetery designated parking spaces be provided. This would be sufficient for

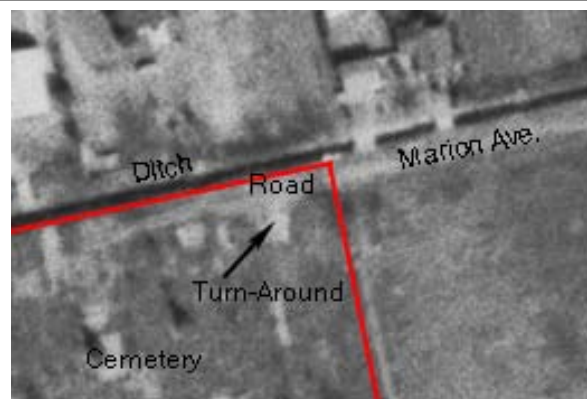


Figure 11. Road into the cemetery. Upper photo shows the area in 1964. The lower photo shows the area in 2014.

the cemetery's current low visitation. Any effort to re-establish the pre-existing dirt road and turn-around in the cemetery would require investigations to ensure that no graves would be damaged. It is far easier to create new parking.

Pedestrian Access, Pathways, and Sidewalks

We anticipate that people visiting these cemeteries will come by vehicle. Hartsville has no

bus service nor are there bike trails in this part of the City. While sidewalks are present on one-side of 8th Avenue, we saw few pedestrians during the assessment.

The cemetery lacks fencing and thus could be accessed at any point were it not for the dense vegetation. At the present there is a very noticeable social trail that runs from Marion Avenue south and west to Glen Acres Drive, providing a convenient cut-through to the Hartsville High School.

Should vegetation be removed from the cemetery the City can expect that this social trail will migrate to the northwest into and through the cemetery. In fact, the 1964 aerial shows several social paths through the cemetery to connect Marion Avenue with points to the west.

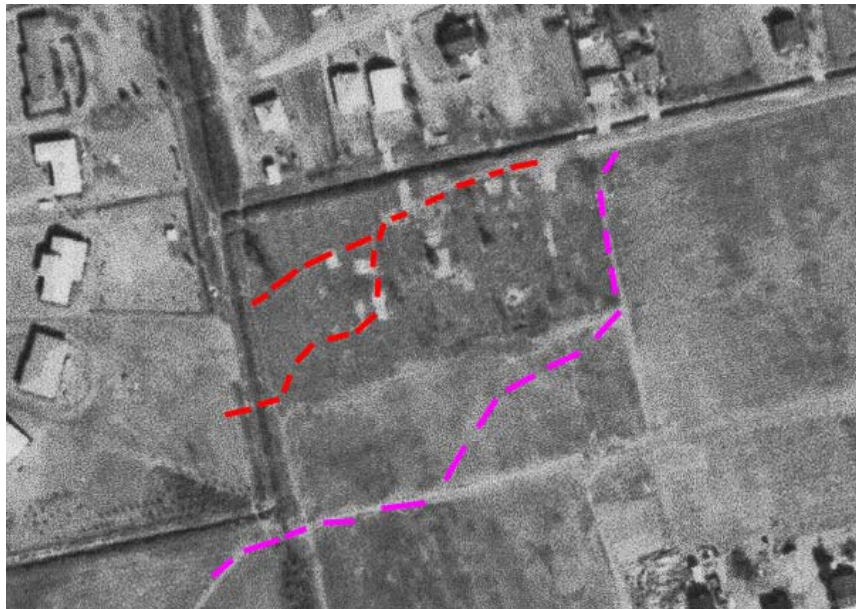


Figure 12. Social paths. The red line indicates trails present in 1964. The purple line indicates the social path today.

It is critical that planning include the propensity for social paths to form and to direct those paths around – and not through – the cemetery. This can be accomplished more easily through fencing, discussed in a following section, which can also serve an important security function.

Universal Access

At the present time there is no evidence that the cemetery, if cleared of vegetation, will have significant visitation. Nevertheless, many who do visit cemeteries are elderly with a variety of impairments. While it is not possible to a natural landscape fully accessible, consideration should be given to those steps that be reasonably taken. Moreover, all future modifications should explore accessibility issues in an effort to maximize access by all citizens.

The cemeteries lack steep grades and thus there are no elevation barriers to access. Nevertheless, we anticipate that virtually all areas have at least some rough terrain. Grass or sandy soil are less than ideal surfaces for wheelchairs and others with mobility or sight disabilities. Paths in a cemetery or grassed setting should have

a smooth, regular surface, with tactile warning underfoot of any hazards such as a change in level. A critical factor is to avoid simply repeating street pavement details that would clash with the cemetery setting.

Gravel should only be used if it is well compacted, with no loose stones greater than 1/4". This makes it possible to push wheelchairs and reduces the possibility of tripping for those who are unsteady on their feet. Regular maintenance is required, although bound gravel or epoxy bound gravel reduces the level of maintenance.

Gravel, however, is a harsh introduction into a burial ground where pathways were never found historically or were historically grassed. Moreover, the gravel should not use stone already found in the cemetery (such as marble or granite) since such efforts may confuse the public, giving

the impression that monuments were converted to paving material.

Should paving pathways eventually be required, a far better choice is to use grass tracks underlain by a reinforcing system to provide a firm, but free draining layer on which the grass can grow. If the grass is well maintained it will not unduly hinder wheelchairs. Unattended, however, it will inhibit wheelchairs, as well as hide tripping hazards – so maintenance is critical. The pathway can be clearly identified by using a grass distinct in color and texture, providing clear visual clues to those using it.

One grass reinforcement system commonly available is the Grasspave2 porous pavement by Invisible Structures, Inc. (<http://www.invisiblestructures.com/grasspave2.html>). This system has the added benefit of having been approved for ADA use.

The construction of any pathways will, however, require archaeological investigations to ensure that burials or other archaeological features are not damaged.

Ideally paths should be at least 5'7" in width to accommodate wheelchair users and people with visual impairments assisted by a sighted person or guide dog. A path of this width will also allow an adult and child to walk together.

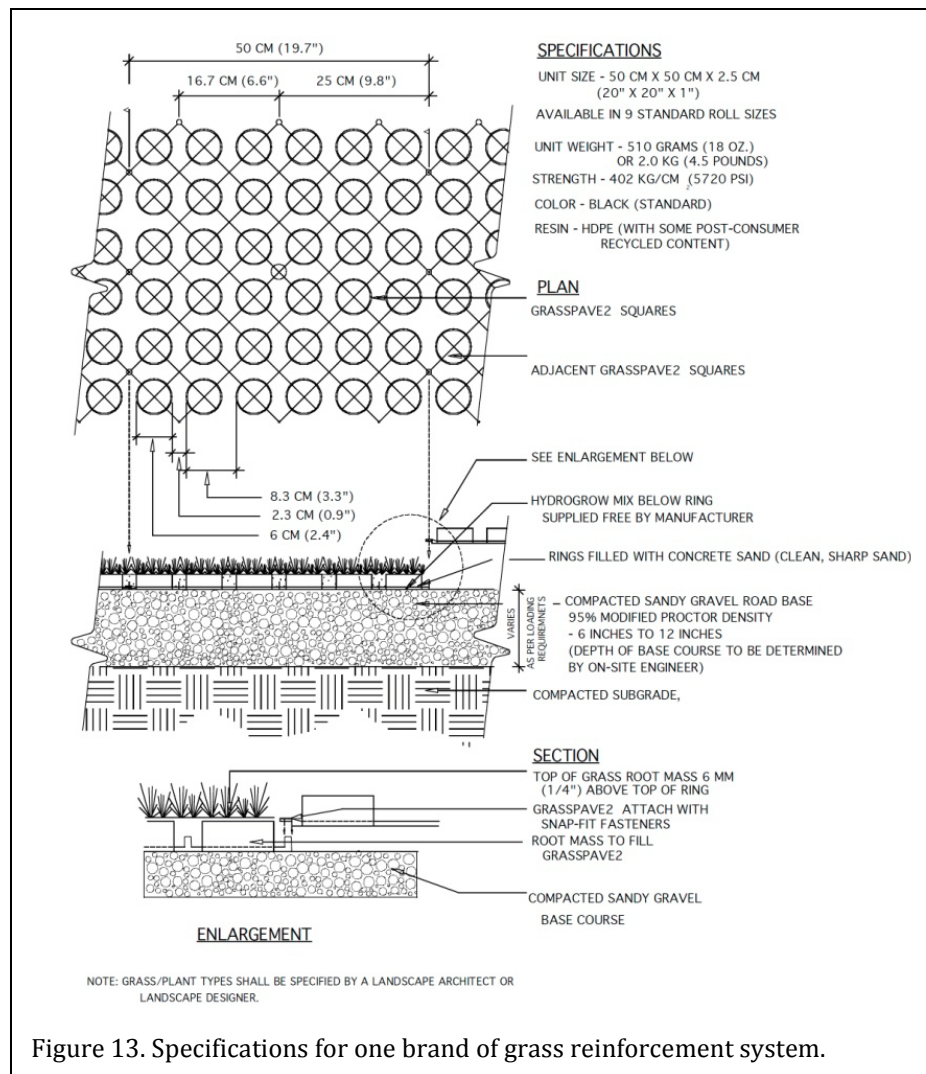


Figure 13. Specifications for one brand of grass reinforcement system.

The minimal suitable width is 3'11".

There are, of course, additional issues in achieving universal access, such as the use of appropriate signage and even the selection of routes in the cemeteries. While ADA compliance may not be required, the goal should be to create additions to the cemeteries that are as accessible as possible. In addition, existing obstacles to access should be removed wherever possible.

Recommendations

- The City should create several parking spots in close proximity to the cemetery

as Lincoln Village is converted into a public space.

- Planning must recognize the potential for social trails to be established through a cleaned and accessible cemetery. These paths must be prevented.
- All future modifications at the cemeteries should be evaluated for their impact on universal access. Universal access should be a goal whenever possible.
- Future consideration should be given to establishing grass tracks underlain by a reinforcing system to achieve ADA compliance on selected pathways of appropriate widths and road access.
- Installation of pathways in the cemeteries will require archaeological investigations.

Cemetery Security

Vandalism

We have no records of vandalism at these cemeteries in Hartsville. At the present time the extensive undergrowth makes vandalism difficult, but also would hide any vandalism that might occur. The City, however, reports no recent acts of vandalism at its other cemeteries.

Consequently, these discussions will be focused on means of minimizing future opportunities in the cemeteries at the end of Marion Avenue.

The cemetery must be maintained at a level sufficient to allow vandalism, should it occur, to be immediately recognized. In addition, there is a correlation between maintenance and vandalism, so higher levels of maintenance are likely to discourage vandalism.

There must be a systematic inspection process to allow vandalism to be identified – by staff, visitors, and friends of the cemetery.

There must also be a formalized mechanism for reporting vandalism specific to the cemetery setting and ensuring that it is taken seriously by law enforcement.

There are relatively few studies of the causes of vandalism. Those that exist present a broad range of possible reasons, including poverty, unemployment, disintegration of family life, and availability of drugs and alcohol. Other studies include problems inherent in single family homes and parents that fail to guide their children in social and moral issues. Even the judicial system itself is thought to contribute to the problem by failing to deal more harshly with offenders.

Unfortunately, cemetery specific vandalism has not been studied and we must rely on studies largely focused on school vandalism to understand the phenomenon (although we have no assurance that the two can be reasonably related). Most school vandals are typically young (junior high school), male, and act in small groups. Participating in vandalism often helps a youth to maintain or enhance his or her status among peers. They have typically done poorly academically and have little or no understanding of how their behavior affects others. They are not, however, any more likely to be emotionally disturbed than their peers who do not commit vandalism. Those who commit vandalism are not likely to be judged harshly by their peers. Youth who lack fulltime parental supervision during after-school hours are more likely to commit vandalism.

To this we can add that our experience with vandalism suggests a very strong correlation between the vandalism and considerable alcohol consumption. Moreover, we find that vandals extend in age well into the 20s.

Physical measures to reduce vandalism – some of which we will recommend – have great appeal. Such projects are easy to understand and physical measures generally have only a one-time outlay of funds. Such measures, however, must not make the cemetery appear fortress-like.

The program outlined here is specific for the Marion avenue cemeteries, but may have some applicability at other Hartsville cemeteries.

Control Access

The boundaries for the cemeteries must be clearly defined and discourage social paths.

To accomplish this we recommend about 1260 linear feet of industrial grade chain link fencing. Minimum specifications (and justification) are:

Height – 6 feet (far more difficult to scale than a 4 foot fence, but still not fortress looking)

Top Rail – no top rail should be used, only 7-gauge coil spring (this eliminates a handhold thus making the fence more difficult to climb)

Bottom Rail – install a bottom rail secured in the center of the two line posts using a $\frac{3}{8}$ " diameter eye hook anchored into a concrete footing (This eliminates the possibility of forcing the mesh up to crawl under the fence)

Bottom of the Fencing – the fencing must be installed no greater than 2" above grade (this further reduced the possibility of pulling up the fencing to crawl under)

Bolts – all bolts must be panned (this eliminates the removal or loosening of the bolt nuts)

Attachments – tension bands and tire wires must be installed at no greater than 12" apart on line and corner posts.

Barbed Wire or Barbed Tape – we do not recommend either both because of liability and also because they give the cemetery a fortress-like appearance.

Selvage - top and bottom edge finish on the fence should be twisted selvage (this makes it more difficult to grip the wire for climbing)

Mesh Size and Gauge – the chain link should be a minimum of 9 gauge wire and the size of the mesh should be no greater than 1 $\frac{1}{4}$ " (the heavier wire will last much longer, will be more resistant to

corrosion, and will be much more difficult to cut)

Line Posts - Schedule 40 or Allied 'SS40' weight posts galvanized pipe per ASTM F1083 in a 2 1/2" O.D. Pipe terminal posts are should be one size larger in outside diameter than the line posts. All posts should have exterior zinc coating Type A, interior zinc coating Type A (these provide excellent wind resistance and offer additional protection against physical attacks and corrosion)

This fencing will be more expensive initially than a residential grade fence, but it will last much longer, reduce the need for on-going maintenance, and make the cemetery more secure.

Fence gates are a constant source of maintenance and are rarely closed. An option is to install a pedestrian opening with a bollard to prevent motorcycles and similar small vehicles from entering. In addition, a maintenance gate could be installed, if necessary, but kept locked. If universal access is suitable, signage could inform those in wheelchairs or otherwise not able to navigate the pedestrian entrance to call a City phone number to have the maintenance gain unlocked.

Post Regulatory Signage

Access-control signs are an important part of "rule setting" in that they establish the types of activities prohibited in the cemeteries. As discussed in the section entitled "Other Maintenance Issues," the City should install regulatory signage.

Lighting

Lighting is sometimes seen as reducing vandalism. There is no consensus on whether well-lit areas or "dark" locations are superior in terms of crime prevention. Cemeteries were not lighted historically. Thus, the introduction of lighting detracts from the historical integrity of the properties, changing the historic fabric. Another issue to be considered is that lighting is

only useful if there is someone guarding the property, using the lighting to identify problems. This is not the case in most cemeteries, including those in Hartsville.

There are currently several Cobra Head luminaries in the immediate vicinity of the cemeteries. They are found on the north side of Marion Avenue (including one at the end of the road adjacent to the northeast corner), in Lincoln Village, and on the south side of the cemetery.

While we do not recommend any lamps in the cemetery boundaries, maintaining those on the periphery is appropriate.

Repair Damage Quickly

Clean, well-maintained cemeteries free of debris or garbage, free of evidence of past vandalism, and with attractively landscaped grounds are less at risk for vandalism. Consistent maintenance may serve as an "occupation proxy," giving the appearance that the cemetery is under steady surveillance by those concerned about keeping it safe. Conversely, cemeteries with much trash, evidence of damage, or poorly maintained grounds give the appearance of abandonment; if no one in society cares for the property, why should the prospective vandal? Simply put, the appearance of abandonment breeds additional damage and vandalism. Thus, it is critical that the level of maintenance at the cemeteries be maintained once the area is cleaned of vegetation.

Increase the Frequency of Police Patrols

At the present time we are informed that police patrols are infrequent and it appears that there is little proactive policing. Patrols are entirely reactive, being dispatched to the neighborhood only when called.

Increasing the frequency with which police patrol the periphery of the cemeteries increases the likelihood that potential vandals will be seen. Even though there are no roads through the parcel that would allow police to readily

access the grounds, the act of raking their spot light through the property will give the appearance of visibility.

Patrols should be especially vigilant during holidays such as Halloween and once the adjacent park is open to the public.

Hold Offenders Accountable

Very few perpetrators of cemetery vandalism are identified and apprehended, and even fewer are prosecuted. Courts are generally lenient with offenders, and in most cases, the damage from an individual incident is seen as minor and does not appear to warrant harsh penalties. However, creative and well-publicized interventions to hold offenders accountable can have both a specific and a general deterrence effect. Restitution programs include a set of administrative and legal procedures to get money from offenders to pay for repair or replacement of damaged property. Publicizing the results of these efforts is important to maintain their deterrent effect.

The City should ensure that police investigate vandalism and work to secure an arrest. If an arrest is made, representatives of the cemeteries should be present in court, testify concerning the impact – and cost – of the damage, and ask for the maximum punishment possible. If no restitution is required by the court, the City should consider civil court action to recover costs associated with professional repair of the damage.

Use of Photographic Monitoring

An option for hardening cemetery targets is the use of video and photographic imaging technologies. At the high end are systems such as VistaScape – an automated wide-area surveillance system that detects, tracks, and classifies objects in real time on a computer screen. If an object violates a policy set by the user, the software streams live video of the alarm event to the display and can also send wireless alerts to law enforcement personnel. Although an ideal solution, the cost makes such system beyond the reach of most cemeteries.

An alternative, however, is the Flashcam by Q-Star Technology (<http://www.qstartech.com>). This self-contained digital system is motion activated; a photograph is taken (a flash unit allows night photographs at 100 feet), and a customized recorded announcement is played. Units are solar powered, eliminating the need for electrical connections. Photographs are high resolution and time/date stamped. Units can be downloaded wirelessly. Although not inexpensive, they are among the most affordable solutions for cemeteries facing on-going vandalism and theft problems.

We would only encourage this outlay if the cemeteries experiences significant problems in the future.

Maintain an Inventory of Cemetery Stones and Their Condition

Vandalism often goes unreported because cemetery caregivers do not know what is present in the cemetery or its condition. Thus, vandalism can be overlooked as pre-existing damage. This makes a complete stone-by-stone assessment critical for near-term inventory purposes.

The Old Darlington District Chapter of the South Carolina Genealogical Society has begun this process by their recordation of stones. Once the cemetery is cleaned of vegetation, we encourage them to return and update their records. All monuments should be photographed so there is a current record of its condition.

Create “Cemetery Watch” Programs

Similar to "Neighborhood Watch" efforts, community residents can conduct citizen patrols of cemetery property during evenings and weekends.

As an adjunct to this, residents in adjacent houses should be especially encouraged to be attentive to problems in the cemeteries. Unusual

noise, lights, or activities should be sufficient to have neighbors call the police to report their concerns. The City should seek to encourage the active participation of residents surrounding the Cemetery, especially the residences nearby on Marion Avenue and at the west end of Jasper Avenue (where house back up on the cemeteries). Meetings should be held, preferably in the evening and preferably on the premises of the residents, to allow the City to enlist the support of these residents.

In response to a specific problem or rash of incidents, Watch programs can produce short-term reductions in vandalism. However, these programs are difficult to sustain, so the City will likely need to periodically “rejuvenate” the program by holding new meetings and bringing in new participants.

The City should also consider developing similar programs using volunteers to assist in collecting trash, cleaning stones, or other activities. Boy and Girl Scout troops should also be contacted. Involving students in the care of cemeteries, and engaging them in ongoing, active projects will help establish a strong bond in the community.

Dealing with the Homeless

It appears that there is a very low incidence of homelessness in the Hartsville area. Nevertheless, we recommend that the City evaluate the need for a defined policy.

All laws with respect to public behavior should be enforced in the cemeteries by law enforcement. Should any shopping carts, bedding, or other personal belongings be found secreted away on the property, they should be removed promptly. The landscape must be maintained to prevent hiding places and to ensure clear lines of sight. The Cemetery must be kept free of litter and debris.

Recommendations

- An industrial chain link boundary fence should be a high priority once the

cemetery is cleared of vegetation. Once erected, the fence should have a preventative maintenance program to ensure its long-term maintenance. This effort, however, can be minimized by installing a high quality fence initially.

- The cemetery has been so overgrown for so long that there is no evidence of past vandalism. However, the City of Hartsville should implement an approach to avoid future events. Besides the fencing this includes installation of signage, ensuring the maintenance of lighting, increasing the frequency of police patrols, and encouraging local neighbors to report any evidence of problems on the tract.

Cemetery Fixtures and Furnishings

Introduction of Additional Memorials

Once the cemetery vegetation is under control, the property fenced, and graves have been infilled, individuals or groups may wish to install new markers or memorials in the cemeteries. The City should be very circumspect in allowing new markers and approving their specific placement. It is very important that the historic context and appearance of the cemeteries be carefully maintained. It is equally as important that graves not be incorrectly marked.

Replacement Monuments

All people deserve the dignity of ensuring their grave is marked and there are times when a marker is so eroded or difficult to read that it no longer serves as an appropriate memorial.

The original marker should never be removed. Nor should it be recarved. Instead, the original marker should be left in place and a new marker laid at its foot as a lawn marker (a horizontal plaque). The new marker may be bronze or granite as both exhibit considerable longevity. By allowing only lawn markers, the three-dimensional landscape of the cemetery is maintained, while the grave continues to be memorialized.

The new marker should contain only what is (or was) on the original marker, with the addition in small letters that it is a replacement marker erected in a particular year. This helps ensure that it is made clear that it is a recent introduction into the historic cemetery.

New Monuments

New monuments placed are previously unmarked graves are problematic. We recommend that they be allowed only when they replace a still-legible funeral home marker.

In the case of unmarked graves we doubt that oral history or memory is sufficiently accurate to ensure that the exact grave can be identified. Thus, the City should not allow previously unmarked graves to be marked at this time. An appropriate alternative is the erection of a granite memorial at the entrance on which names can be engraved at the expense of the families desiring the marking.

Various Amenities

Historically, many African American cemeteries were rather Spartan in their appearance. There are, for example, often no benches, vases, or urns at most African American rural cemetery plots.

This is not necessarily bad. The absence is certainly related to the time period of the burials and cultural values of the families. Benches tend to be rather late introductions. Their absence absolves the City of their maintenance – which can often be significant. In addition, benches are often attractive nuisances and we generally do not recommend their installation.

Similarly, urns and vases tend to be maintenance issues. Urns are often sold by monument companies to clients who are unaware of the upkeep. As a result, the urns often hold water, breed mosquitoes, collect trash, are turned upside down, or are just ignored. They are rarely repaired or replaced when broken. They are likely not used since most floral arrangements today

come in their own plastic container, rendering the urns and vases redundant.

Consequently, we strongly discourage the City from allowing their introduction once the cemetery is cleaned.

Recommendations

- The introduction of new memorials must be very carefully monitored and limited. New monuments should be allowed only when the historic monument is no longer legible. In such cases, the original monument must remain and a new flush marker with the precise language of the original marker erected as a flush-to-ground lawn marker.
- New monuments marking should be allowed only as replacements for legible funeral home markers. New markers should not be allowed on previously unmarked graves.
- Previously unmarked graves can be suitably memorialized, at the families' expense, by adding names to a granite marker at the entrance of the cemetery.
- The City should not allow the introduction of benches, urns, or vases in the cemeteries.

Landscape Issues

Vegetation

Currently the cemetery is heavily overgrown. Many of the smaller trees have suffered damage from previous ice storms and have been topped (Figure 11). In some areas that have been previously cleaned, there are dense stands of pokeberry. There remain piles of dead branches and debris gathered, but not removed, during a recent cleaning effort. In other areas the vegetation is so dense that access into the cemetery is difficult (Figure 12). Virtually all trees are covered in vines. In sum, it is critical that the overwhelming vegetation be expediently removed.

This work, because the stones are hidden and sunken graves must be preserved until mapped, must be accomplished by hand. We estimate that a crew of eight may require 2 to 3 weeks to perform the work. We recommend working during the winter when the vegetation is down, providing maximum visibility.

First Phase

The initial phase should remove all vines and all scrub vegetation under 4-inches dbh (diameter breast height, or the diameter of the tree about 4 feet above the ground). This will need to be accomplished using chain saws, brush saws, and clippers.

All removed trees should be cut as close as practical to the ground. Under no circumstance should more than 2-3 inches of stump be left above grade. However, absolutely no stumps should be removed or ground. Both will cause damage to adjacent graves or stones.

Many of the trees that are removed may

sucker or put out additional growth (see Figure 13). To avoid this one individual should be assigned the task of painting all freshly cut stumps with a 30% Garlon 4 Ultra in a commercially available basal oil. We also recommend the addition of a colorant so it is easier to determine

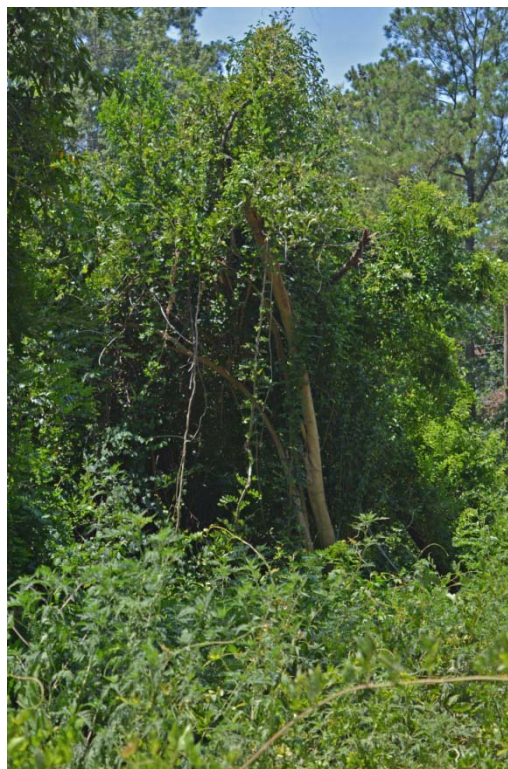


Figure 11. Topped tree covered in vines.

which stumps have been treated.

All downed vegetation should be gathered up and removed from the cemetery by hand. A good stacking point would be the large vacant space associated with Lincoln Village at the southeast corner of the cemetery.

The removed vegetation should be run





Figure 13. Examples of incorrectly and correctly cut stumps. The upper photo shows a stump cut too high and left untreated, now beginning to put out suckers. The lower photo shows a stump cut flush to the ground and treated with a 30% Garlon 4 Ultra in a commercially available basal oil with a marker dye (Fluorescent Red Liquid Concentrate).

through a chipper reducing the volume and converting the debris into a useable mulch.

This initial phase should make the cemetery walkable and should make it possible to

see both monuments and sunken graves. At this stage no activities associated with either should be done.

However, during the clearing it will be important to avoid disturbing graves or monuments. Extreme care will be necessary to avoid walking through deeply sunken graves since this may cause damage to skeletal remains.

It is also critical that during the initial clearing efforts that intentionally planted vegetation not be damaged or disturbed. Examples we identified during this assessment include patches of lirioppe and English ivy (*Hedera helix*) (Figure 14).

Other plants not observed, but possibly present include cedars (*Juniperus virginiana*), first breath of spring (*Lonicera fragrantissima*), nandina (*Nandina domestica*), camellia (probably *Camellia japonica*), yucca (*Yucca filamentosa*), canna lilies (*Canna indica*), climbing or rambling rose (*Rosa hybrida*), arborvitae (*Thuja orientalis*), trailing verbena (*Verbena canadensis*), spiraea (*Spiraea thunbergii*), iris (*Iris spp.*), Japanese privet (*Ligustrum japonicum*), fragrant tea olive (*Osmanthus fragrans*), cactus (*Opuntia spp.*), and daffodils (*Narcissus spp.*). Consequently, a



Figure 14. Examples of intentionally planted vegetation. Upper photo shows a small patch of liriope. Lower photo shows a large expanse of English ivy.

knowledgeable individual should be overseeing the removal at all times.

While not all of these plants may ultimately be retained (some are difficult to control) and many require pruning to rejuvenate them, all should be initially flagged and avoided.

Care must also be taken to avoid disturbing or displacing metal funeral home markers. These will need to be carefully staked when observed.

Second Phase

The second phase, which may proceed immediately after completion of the first, involves

assessing which of the remaining trees should be removed. Those trees should be marked and carefully removed by hand, with the stumps treated with a 30% Garlon 4 Ultra in a commercially available basal oil with a marker dye. The removed trees should also be chipped off-site to add to the available mulch pile.

Examples of trees suitable for removal include those that have been topped by ice storms or are otherwise diseased. Trees growing so closely together that they will be unable to develop a good crown should be thinned, leaving the most healthy specimen or specimens.

Poor trees should not be left simply to have vegetation in the cemetery – we will be recommending replanting appropriate trees in a following phase of work.

During this work the trees remaining should be inspected for potential threats to monuments, as well as general health and pruned by a ISA (International Society of Arboriculture) Certified Arborist (see Table 3).

Pruning is generally either thinning or cleaning. Thinning is a technique of pruning that removes selected branches to increase light and air movement through the crown. This also decreases weight on heavy branches. The natural shape of the tree is retained and its overall health is improved. In cleaning, the pruning removes branches that are dead, dying, diseased, crowded, broken, or otherwise defective. This includes narrow crotches.

Trees should be pruned in such a manner as to preserve the natural character of the plant and in accordance with ANSI A300 (Part 1) - 2001 standards. Branches should always be cut just beyond the branch collar (an extension of the main stem) and not flush with the trunk. Large branches should be removed with three cuts to prevent tearing of the bark which can weaken the branch and lead to disease.

During this work, when not interfering with tree removal or pruning, graves and grave

Table 3.
ISA Arborists in the Hartsville vicinity

Name	Company	City	Phone
C.S. Nelson	Arborworks Tree Co.	Hartsville, SC	843-857-0495
Jahn D. Hultgren	Hultgren Tree Services	Florence, SC	843-664-8733
Debra Dickinson	Sylvan Cities	Florence, SC	843-250-6146
William H. Cercopely	State Tree Serevice	Sumter, SC	803-225-0084

depressions should be clearly marked to allow a registered land surveyor to produce a map of the cemetery. This map should number all graves, keying marked graves to their number.

At the conclusion of the mapping it is then appropriate to fill all sunken graves. This should be done by raking out the bulk of the vegetative material and infilling the grave with clean builder's sand. This sand will provide a clear and distinct difference between the fill and surrounding soil, should it ever be necessary to examine or remove any grave.

Third Phase

The third phase involves examining the intentional plantings identified and evaluating what pruning may be necessary and whether any of the plantings should be removed.

During this third phase it is also appropriate to examine where new trees could be planted. Cemeteries, in general, have historically been dominated by large deciduous trees, although evergreens are also very common. They provide a distinctly inviting image for visitors and passersby. These trees also provide some visual separation from adjacent buildings – especially in cluttered urban environments.

All other issues being equal – plantings should focus on those tree species that are known to have been used or that are historically appropriate. We urge care in selecting additional plantings, focusing on a small number of historically appropriate trees to maintain the historical integrity of the cemetery. Appropriate trees would include Eastern red cedar, post oak, white oak, sugar maple, and arborvitae.

Locations chosen for planting should not interfere with gravestones or the proposed boundary fence. Issues of security should also be considered and the use of small trees that obscure eye level views should generally be limited or avoided.

All replacement trees or new plantings should be of at least 1-inch caliper and meet the minimum requirements of the American Nursery and Landscape Association's American Standard for Nursery Stock (ANSI Z60.1-2004). Since there is no water at City Cemetery, new trees must be provided water bags. There are a variety of water bags for young trees, including the Treegator (<http://www.treegator.com/home/>). In fact, bags are now readily available in big box stores. Their use will require the City to acquire a water tank, but the City may already have this equipment. It may also be able to run a hose from the fire hydrant at the cemetery.

Special care should be exercised to prevent bark damage from mowers and trimmers. We recommend the use of tree guards (<http://www.amleo.com/tree-bark-protectors/p/VP-BG/>).

Research is suggesting that trees, especially older mature trees, improve in health when turfgrass is removed under the branch spread and mulch is applied at a depth not exceeding 3 to 4-inches. Fine-textured mulches prevent evaporative water loss better than coarse-textured mulches.

The chipped material from the cleaning of the cemetery can be used to mulch around the existing trees to their dripline. New plantings should be similarly mulched.

Fourth Phase

At the end of the third phase the cemetery will largely be in order with the exception of groundcover. At this juncture the City will have two options: either to mulch those areas in the cemetery not already covered with English ivy or

some other ground cover or to plant a grass for groundcover.

If the cemetery is to be mulched, we recommend carefully spraying unwanted remaining vegetation, such as small cherry laurel sprouts and other weedy vegetation with an herbicide combined with a dye marker. Afterwards we recommend placing about 4 inches of mulch.

This approach will provide some reduction in long-term maintenance, although it will be necessary to periodically remove vegetation that has grown through or in the mulch. Moreover, every two years it will be necessary to add additional mulch. This ground cover is not, however, historically appropriate and this may be an issue should the City wish to include the cemeteries on the National Register of Historic Places.

The alternative is to establish a grass in areas not mulched or which are not already covered with something else (such as English Ivy). This approach is historically appropriate and the available aeriels indicate some sort of grass was present in the cemetery. This approach, however, will require at bi-weekly mowing during the long South Carolina growing season. It will also require considerable effort to establish a turf, including seeding or sodding, as well as frequent watering, probably using a temporary above grade sprinkler system until the turf is established.

The two most practical turf species are centipede (<http://www.clemson.edu/extension/hgic/plants/pdf/hgic1209.pdf>) or bermudagrass (<http://www.clemson.edu/extension/hgic/plants/pdf/hgic1208.pdf>). City staff will likely have a preference based on prior experiences, available equipment, and other local factors. We will observe that there are a variety of bermudagrasses available today, including cultivars that offer features superior to the common or even improved common species used in the past.

Choice should factor in drought tolerance

since we do not recommend any long-term effort to provide water to the cemetery.

It is good practice to test soils every three to five years and we recommend this practice begin immediately. A simple tutorial on soil sample collection is provided at http://www.caes.uga.edu/applications/publications/files/pdf/C%20896_4.PDF.

In order to assist the City, should a groundcover be chosen over mulch, we took a soil sample from the several locations in the cemetery in order to evaluate soil conditions.

The soils have a low cation exchange capacity of 4.3 meg/100g. The cation exchange capacity is the maximum quantity of total cations, of any class, that a soil is capable of holding, at a given pH value, available for exchange with the soil solution. It is used as a measure of fertility and nutrient retention capacity, and in general, the higher the number, the higher the soil fertility. The cation exchange capacity can be improved with the introduction of humus and organic matter. The results of this study show that the soils are not able to readily retain nutrients and thus are relatively infertile.

Nevertheless, organic matter is not especially low, being identified as 3.7%. The soils would benefit from soil amendments, and the proposed mulching would help add organic matter back into the soils. However, more important than the current levels are changes over time – providing another reason by periodic testing is beneficial.

The soils, as anticipated are acidic, with a pH of 4.5. Most plants prefer levels from 5.8 to 7.0, so liming is one of the first recommendations in order to increase the soil pH and promote greater microbial activity.

Dolomitic lime application at the rate of 58 pounds per 1,000 square feet is recommended to bring the soil to a target pH of 5.8. However, lime application should not exceed 50 pounds per 1,000 square feet, so it is advisable to split the

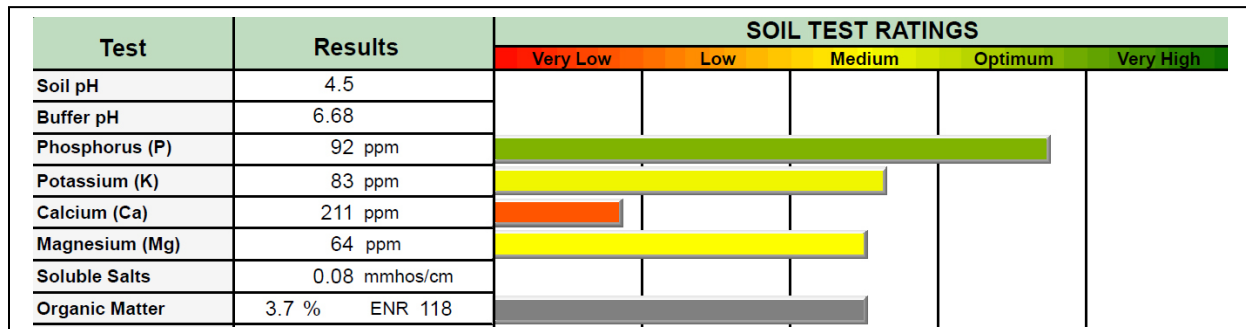


Figure 15. Soil test for the Hartsville cemeteries.

amount into two applications about 4 to 6 months apart.

Phosphorus (P) levels are optimal in the sample. Phosphorus is essential for photosynthesis, seed and fruit production, plant energy production, and cell division. Adequate supplies will promote root growth and formation, greater flowering and seed production, better growth in cold temperatures, and efficient water use.

Potassium (K) is also essential in photosynthesis, plant growth, and effective response to drought stress. Like phosphorus, it tends to be reduced by low pH and low cation exchange capacities. Thus, it is not surprising that it is found at only medium levels. Balancing soil pH will likely improve potassium levels.

Calcium and magnesium levels range from very low to medium. The reason for this is not known. In general, both are affected by the soil acidity and the low cation exchange capacity.

Finally, we tested for soluble salts. These are common in virtually all commercial fertilizers. They can affect not only the plants, but also the stones at the cemetery. Soluble salt levels were 0.08 mmho/cm and these levels are considered very low. This is not surprising since we doubt that any commercial fertilizer has ever been applied.

This brief discussion reveals that the availability of several plant nutrients is being affected by the low soil pH. Thus, while fertilizers could productively be used, we recommend instead that an effort first be made to raise the pH

and then conduct additional soil tests to further evaluate macro and micronutrient levels.

If fertilizers are to be applied, based on the current soil tests the recommended levels are 5 pounds per 1,000 square feet of 10-20-15 as a single application.

Recommendations

- Vegetation at the cemetery must be brought under control using a four phase approach of first, removing small vegetation; second, selecting the larger trees to remove, pruning the retained trees, mapping stones and depressions, and infilling depressions; third, dealing with intentional plantings that may be found and planting replacement trees; and fourth, either mulching the cemetery or establishing a turf grass.
- All removed trees must be cut as close to the ground as possible and the stump treated with herbicide (30% Garlon 4 Ultra in a commercially available basal oil with a marker dye) to prevent suckering. They must be removed from the cemetery and shredded to create mulch.
- No stumps should be removed or ground.
- Care must be taken to avoid removing intentional cemetery plantings. Afterwards these can be assessed for long-term viability.

- All work must be done by hand to avoid damage to graves, monuments, or funeral home markers.
- All depressions and marked graves should be identified and then mapped by a registered land surveyor.
- After mapping, all grave depressions should be infilled with clean sand.
- Larger damaged or unhealthy trees should be removed and treated the same as smaller trees.
- Trees to be retained should be assessed and pruned by an ISA Certified Arborist.
- Additional trees should be selected and planted in the cemetery to fill in especially barren and open areas.
- All trees should be mulched by no more than 3-4 inches of mulch out to the drip line.
- The cemetery may either be mulched or planted in a grass (except for those areas of natural ground cover, such as English ivy). Regardless, we recommend that the cemetery be limed to bring the soil to a target pH of 5.8.

Other Maintenance Issues

This section briefly explores other cemetery maintenance concerns exclusive of the landscape. We will briefly discuss the open drainage ditches and signage issues.

Drainage Ditches

As briefly discussed elsewhere there are open drainage ditches along the north and west sides of the cemetery. The historic research reveals that these ditches (likely their centerlines) represent the northern and western boundaries of the cemetery. Simply put, the cemetery property extends fully to these ditch slopes.

This means that the City can no longer maintain or utilize an “easement” for ditch maintenance since no easement was ever dedicated and graves may potentially be found within this “easement” area.

There are visible monuments along the southern edge of the northern ditch “easement” and City staff indicated that special care had to be taken to avoid damaging these monuments. There is brick and stone in the “easement” which may represent construction debris – or which may represent monuments damaged by ditch cleaning machinery.

Even if no graves were present within 15 feet of the ditch, the equipment used is not amenable to the cemetery. It leaves the area denuded, exposing soil and creating ruts. It would be impossible to suitably maintain the landscape while attempting to also maintain these ditches.

In addition, the Food and Agriculture Organization of the United Nations clearly notes that in warm and hot climatic zones, such as South Carolina, drainage canals include a number of typical features which favor vector breeding,

disease transmission and direct pathogen propagation, such as low and irregular flow velocities, low embankment slopes, high seepage, uncontrolled water access, uncontrolled deposition of excreta, and aquatic weed growth.

Many of these issues are clearly visible in both ditches. In particular, a variety of trash and garbage is found in both the northern and western ditches. Water was stagnant in the western ditch, likely contributing to an abundance of mosquitoes at the cemetery. There are several social trails that cross the western ditch, exposing individuals to whatever may be in the water. Moreover, the northern ditch is extremely deep and poses a potential hazard to neighborhood children.

Since it will not be possible to use heavy equipment in the cemetery to maintain these ditches – and such equipment cannot be used on the opposite banks because of property fences and yards, there are really only a very limited number of options and they all involve modification of the drainage ditches.

These ditches can either be changed from open to piped ditches or covered drains or the ditches can be re-engineered with canal linings of concrete in order to increase flow velocities, reduce aquatic weed growth, and allow for manual cleaning.

It is important to observe that in the early 1960s the northern ditch was open along the north side of Marion Avenue well past the cemetery to the east. At some point this ditch was converted to a buried culvert. We recommend that grant funds be sought to accomplish the same for the remainder of the northern and western ditch in the immediate area of the cemetery.

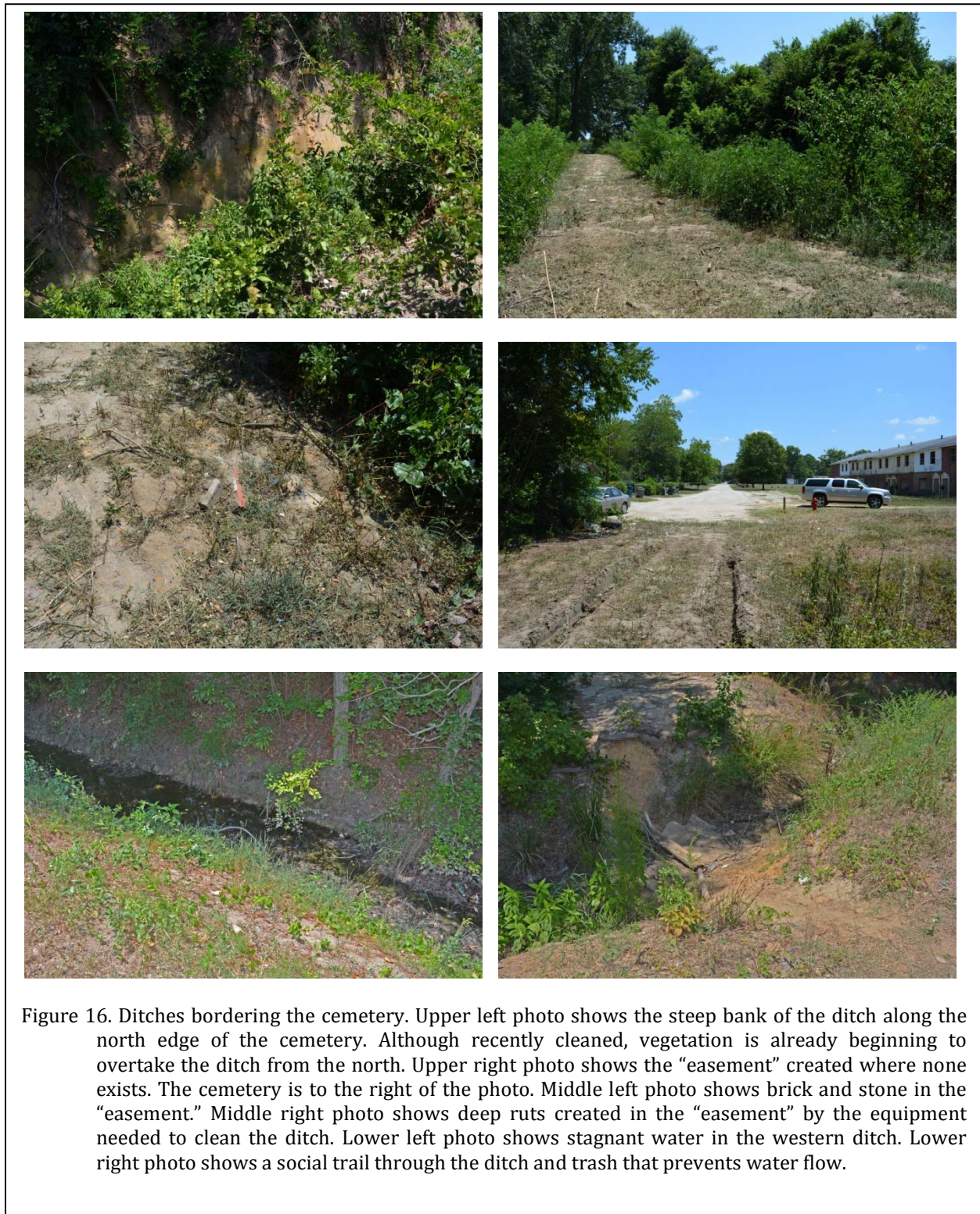


Figure 16. Ditches bordering the cemetery. Upper left photo shows the steep bank of the ditch along the north edge of the cemetery. Although recently cleaned, vegetation is already beginning to overtake the ditch from the north. Upper right photo shows the “easement” created where none exists. The cemetery is to the right of the photo. Middle left photo shows brick and stone in the “easement.” Middle right photo shows deep ruts created in the “easement” by the equipment needed to clean the ditch. Lower left photo shows stagnant water in the western ditch. Lower right photo shows a social trail through the ditch and trash that prevents water flow.

Signage

At the present time the Marion Avenue cemeteries do not have any signage and there little visible evidence that the parcel contains burials.

From a cemetery preservation perspective signage is of four basic types: identification, regulatory, informational, and interpretative. They are generally recommended in this same priority.

Identification signage might include the name of the cemetery and might also include the cemetery's date of founding and historic significance (i.e., listed on the National Register).

Regulatory signage specifies laws, regulations, or expected standards of behavior.

The last two types of signage are informational (for example, directional signs) and interpretative (information on historic people buried in the cemetery). While these are excellent and improve the visitor experience, they are not recommended at this point, but may be added in the future.

The City must strive to develop effective and well-designed signage. Signage should combine good and consistent design, and meet the needs of visitors.

Specifically, the signage should provide consistent information; should be universally accessible; viewable by several people at once; and be very durable and able to withstand abuse or constant touching. Signage should be located near the cemetery entrance.

If the City currently has standardized signage, this should be used, so long as it is not too industrial looking (i.e., as though it came from the sign department of a highway agency).

Identification Signage

We recommend identification signage

that includes something such as:

Hartsville Historic African American Cemeteries
Hartsville Colored Cemetery Association – Founded 1904
Mutual Cemetery Association – Founded 1931

Regulatory Signage

There is no regulatory signage of any description. This signage is critical and should be located at the entrance, so visitors will be clearly informed concerning correct behavior.

This signage should minimally include the following provisions:

Enjoy your visit with us, but please keep in mind these rules.

1. The cemetery is open from 8:00 am to 5:00 pm. Anyone present at other times is subject to arrest and prosecution for trespass.
2. Many of the stones in this cemetery are old and may be easily damaged. Please refrain from sitting, leaning, or climbing on any monument or tomb.
3. While no gravestone rubbings are permitted, please feel free to photograph our monuments. Only commercial photography requires permission from the City Manager.
4. All children must be accompanied by an adult.
5. Absolutely no firearms, alcoholic beverages, firearms, other weapons, or fireworks are permitted in the cemetery.
6. Appropriate dress and behavior is required.
7. No pets, other than service animals, are allowed.
8. Please notify the City Manager's Office prior to group tours.
9. Please respect the cemetery grounds. Don't litter or damage any plantings, trees, or monuments.

10. In case of any emergency, please call 9-1-1 immediately. This location is _____ Marion Ave., Hartsville.

Informational Signage

Given the relatively small size of the property, informational signage (i.e., directions or maps) seems unnecessary and would only clutter the entrances. A simple tour brochure might be useful, but this is a relatively low priority given the numerous significant issues facing the City.

Interpretative Signage

Both cemeteries have an important story to tell about African American mortuary practices during the early twentieth century and there are a number of individuals buried in the cemetery well known in the African American community. Thus, there could certainly be interpretative signage developed. However, this is also a relatively low priority given the other issues associated with cleaning up and opening the cemeteries to the public. This is an issue that should be re-visited in the future.

- The ditches should be converted to piped ditched or covered drains, eliminating the need for maintenance. This has already been done along the north side of Marion Avenue, which in the 1960s also had open ditches.
- A sign theme should be developed for the cemeteries using consistent colors and type faces.
- The cemeteries require both an identification and regulatory sign placed at the entrance. An example of each has been provided.
- Informational signage should not be needed.
- Interpretative signage may be appropriate, but is not currently a high priority.

Other Issues

It may become necessary to install a vandal resistant trash container at the entrance, but we do not recommend this initially. Trash containers represent another maintenance issue and may be easily abused. One should be provided only if there is a clear need and if the City has the ability to inspect and empty it on a regular basis.

Other issues may become apparent as the Lincoln Village is converted into a park. Thus, maintenance should be periodically revisited in light of other neighborhood developments.

Recommendations

- The City may no longer use the “easement” for maintenance of the open ditches along the north and west sides of the cemetery since no easement actually exists and cemetery property runs to the ditch centerline.

Conservation Issues

In the introduction to this plan we briefly discussed a variety of preservation issues, tackling the question of why it is important to preserve sites like the Hartsville cemeteries and introducing the reader to the Secretary of Interior's Standards for Preservation. Readers may want to refer back to those discussions since they form a foundation for our discussion of the conservation needs at these two African American cemeteries.

Standards for Conservation Work

The City of Hartsville is the steward of these cemeteries, holding what belonged to past generations in trust for future generations. As such the Mayor and City Council bear a great responsibility for ensuring that no harm comes to the property during their watch.

One way to ensure the long-term preservation of the cemetery is to ensure that all work meets or exceeds the Secretary of the Interior's Standards for Preservation, discussed earlier in this study.

Another critical requirement is that the City ensures any work performed in the cemeteries be conducted by a trained conservator who subscribes to the Guidelines for Practice and Code of Ethics of the American Institute for Conservation of Historic and Artistic Works (AIC) (<http://www.conservation-us.org/about-us/core-documents/code-of-ethics-and-guidelines-for-practice#.VcDAHvnEmmU>).

These standards cover such issues as:

- ❖ Respect the original fabric and retain as much as possible – don't replace it

needlessly.

- ❖ Ensure that the treatment chosen is suitable for the object, recognizing that at times no treatment is the best option.
- ❖ Choose the gentlest and least invasive methods possible.
- ❖ Is the treatment reversible? Is retreatment possible?
- ❖ Don't use a chemical without understanding its effect on the object and future treatments.
- ❖ Don't falsify the object by using designs or materials that imply the artifact is older than it is.
- ❖ Replication and repairs should be identified as modern so that future researchers are not misled.
- ❖ Use methods and materials that do not impede future investigation.
- ❖ Document all conservation activities and ensure that documentation is available.
- ❖ Use preventative methods whenever possible – be proactive, not reactive.

The AIC Code and Guidelines also require a professional conservator provide clients with a written, detailed treatment proposal prior to undertaking any repairs; once repairs or treatments are completed, the conservator must provide the client with a written, detailed treatment report that specifies precisely what was done and the materials used. The conservator must ensure the suitability of materials and methods – judging and evaluating the multitude of possible treatment options to arrive at the best recommendation for a particular object.

These Guidelines of Practice and Code of Ethics place a much higher standard on AIC conservators than individuals or commercial

monument companies that offer “restoration services.” This higher standard, however, helps ensure that these cemeteries receive the very best possible care and that the treatments conducted are appropriate and safe.

General Types of Stone Damage

Although a stone-by-stone assessment was not included in this assessment, it is possible to provide some general observations concerning at least a few of the types of problems faced by the monuments in the cemeteries. These discussions provide general observations that will help place the recommendations in a broader context.

Only three types of damage were observed during this assessment, although relatively few monuments could be identified in the vegetation. We found examples of sunken monuments, broken stones, and monuments with ferrous pins. As the cemeteries are cleared of vegetation we anticipate that other problems will be identified, most likely including a number of displaced monuments.

Sinking and Tilted Monuments

Monuments tend to sink or tilt because they were originally set without an adequate foundation on the grave shaft. As a result, as the grave collapsed inward, the monument followed. Of course, some tilting occurs because of maintenance impacts as well.

This is a significant, long-term problem for the cemeteries since as stones sink they become more likely to topple. As they topple not only is the appearance of the cemeteries dramatically altered, but the monuments can present a significant liability to the City. In addition, as monuments topple they may hit other stones, causing damage to themselves or the objects they hit. This dramatically increases repair costs.

The solution involves the resetting of these monuments, prior to their further collapse.

Simple Resetting

Some stones in the cemeteries will require resetting. Some of these are flush-to-ground lawn markers or tablets that have sunk and are now either tilted or being covered with soil and debris. Others have fallen and are being covered by soil. Resetting is generally simple.

The stone should be excavated, being careful to avoid shovel damage. If the monument has been set in concrete, the removal of this material may require a conservator to ensure that the stone itself isn’t damaged. Otherwise, the hole can be deepened and filled with pea gravel or decomposed granite as bedding. The lawn marker should be reset about 1 inch above the ground level – tall enough to prevent being covered by soil and grass, but not so tall that it will be damaged by mowing. Tablets should be set with about 25 to 33% of the stone below grade. Additional pea gravel should be packed in around the stone as it is being leveled. The upper inch of backfill should be soil to allow for revegetation.

It is critical that Portland cement never be used to reset stones since it removes their ability to shift if they are accidentally hit by mowing or other landscape activities.

Resetting Die on Base Stones

All cemeteries have a number of granite or marble die on base stones that were originally set using setting compound. This is a commercial product typically consisting of calcium carbonate, talc, and occasionally calcium silicate in linseed oil or a similar material. It is designed to be applied under a granite monument to help seal it to base and prevent water intrusion. Because it contains oil it may leave a halo on marble and should only be used for setting granite monuments. Setting compound is not an adhesive and will eventually dry out. It also does not prevent a monument from being tipped over, so care must be taken when the monument being set is top heavy, very tall, or is in a setting where vandalism is likely. In such cases it is good practice to set the monument not only



Figure 16. Stone problems. Top photo shows a sunken stone. Bottom photo shows a toppled stone with ferrous pins.

with setting compound, but also with one or more fiberglass pins.

Marble stones were typically set with a mortar rather than setting compound, although this too is not an adhesive and will often fail.

In order to reset a die on base that is loose or shifted, it is first necessary to remove the die and set it aside. The base then must be checked to determine if it is both stable and level. In many cases it will be necessary to remove the base, and establish a new foundation with pea gravel or decomposed granite.

All old mortar or setting compound must be removed from the base and the die. This can usually be accomplished using plastic spatulas or a small chisel. Care must be taken not to disfigure the stone during this cleaning process.

If pins are to be installed holes must be drilled and cleaned in both the die and base. Either fiberglass or stainless steel pins should be inserted that are slightly shorter and smaller than the holes. While they may be set using epoxy or lime mortar, it is often acceptable to leave them loose.

The purpose of these pins is to help secure the base and die, making it more difficult to accidentally (or intentionally) tip a monument over.

If setting compound is being used on granite markers, it should be rolled between your hands to create "strings" 1-2 feet in length and about ½ inch in diameter. These strings should be set about ½ inch inside the edge of where the die will make contact with the base. Poly cushion spaces should be used at the four corners to prevent the setting compound from being expelled when the die is reset.

If the monument is marble, then a lime based mortar (never Portland cement mortar) should be used rather than setting compound. Setting cushions should be used to ensure that the mortar is not forced out by the heavy die.

The stone is then reset and appropriately centered – there are special monument setting devices to assist in this. Setting compound that is pushed out can be cut off using a plastic spatula for later reuse. Excess mortar can be manually removed and then the monument can be cleaned off using a barely damp sponge and fresh water. If there are any gaps, additional setting compound or mortar will need to be used to fill these gaps.

At times the dies were originally set using ferrous pins. This further complicates resetting since these ferrous pins must be removed and replaced with either fiberglass or stainless steel.

Broken Stones

There are at least three broken monuments at these cemeteries. Leaving these stones laying on the ground or leaning against other stones subjects them to additional damage, increasing the eventual cost of appropriate repair. Stones on the ground are walked on, may have mowers run over them, and if they are marble or limestone, are subject to greater acid rain damage.

Appropriate conservation treatment requires a blind pin repair. This drilling and pinning is a process that involves carefully aligning the fragments, drilling the stones, and setting fiberglass, or occasionally threaded 316 stainless steel rod, using a structural epoxy in the drill holes.

Diameters and lengths of pins vary with the individual application, depending on the nature of the break, the thickness of the stone, its condition, and its expected post-repair treatment. The choice of epoxy depends on the required strength, among other factors.

Since there is also usually some loss of fabric along the break, this treatment will also involve infilling areas of loss with a compatible mortar. This consists of a natural cementitious composite stone material resembling the original as closely as possible in texture, color, porosity, and strength. This type of repair may be used to fill gaps or losses in marble.

Under no circumstances should latex or acrylic modified materials be used in composite stone repair. These additives may help the workability of the product, but they have the potential to cause long-term problems. Such products are not appropriately matched in terms of strength or vapor permeability.

More suitable materials include Jahn (distributed by Cathedral Stone) or the lime-based mortars of U.S. Heritage. These closely resemble the natural strength of the original stone, contain no synthetic polymers, exhibit good adhesion, and can be color matched if necessary.

Drilling stones is a complex treatment that should only be conducted by a trained conservator. Infill is similarly complex and the Jahn products require certification in their use through Cathedral Stone.

Ferrous Pins

At least one die on base stone joined using ferrous pins was observed during the assessment.

Stones with ferrous pins should be given a high treatment priority since, left untreated, the corrosion of the ferrous pins will cause significant spalling, cracking, and breakage of the stones – a process known as “iron jacking.” The corrosion products of these ferrous pins have a greater volume than the original pin and as the corrosion products expand, they crack the stone. Many of these stones already exhibit corrosion staining and cracking.

It is necessary to use diamond core drills to remove the corroded ferrous pins and replace them with either fiberglass or, rarely, stainless steel. Afterwards it is necessary to fill the voids with a natural cementitious composite stone material such as that previously described for infill repairs.

In some cases the iron pins have already caused the stone to spall. Treatment is similar, except that the replacement pins must often be longer and inserted into stone that is still capable

of bearing the weight of the monument. Such repairs also necessitate major reproduction of lost stone and therefore are more time consuming and expensive.

Cleaning

Many of the stones exhibit relatively dense deposits of lichen (a symbiotic association typically between fungus and green algae). While sometimes viewed as only an aesthetic issue, there are some stones where the biologicals have become so thick that the carving on the stone is nearly illegible. These biologicals may damage stone in a variety of additional ways. As lichen and other plants grow, they can exert pressure on the mineral grains, weakening the intergranular structure. Some organisms produce acid compounds that dissolve the calcium carbonate. Some can even etch granite. Many of the lichen and algae allow water to migrate into cracks and crevices of the stone, leading to freeze-thaw damage.

While cleaning is often recommended, inappropriate cleaning can result in a significant amount of damage. Table 4 lists problems with a variety of “common” stone cleaning processes widely used by commercial firms and the public. This information is important to the City and should also be made available to any families that may inquire about cleaning their specific monuments.

A suitable biocide for cleaning stones is D/2 Biological Solution (<http://d2bio.com/>) available from a variety of conservation suppliers. Stones should always be prewetted prior to application of D/2 and after dwelling for a few minutes followed by gentle scrubbing, should be flushed from the stone.

Recommendations

- The City must require that all work performed in the cemeteries be conducted or overseen by a trained conservator who subscribes to the Guidelines for Practice and Code of Ethics of the American Institute for

Table 4.
Comparison of Different Cleaning Techniques

Cleaning Technique	Potential Harm to Stone	Health/Safety Issues
Sand Blasting	Erodes stone; highly abrasive; will destroy detail and lettering over time.	Exposure to marble dust is a source of the fatal lung disease silicosis.
Pressure Washers	High pressure abrades stone. This can be exacerbated by inexperienced users. Pressures should not exceed 90 psi.	None, unless chemicals are added or high temperature water is used.
Acid Cleaning	Creates an unnatural surface on the stone; deposits iron compounds that will stain the stone; deposits soluble salts that damage the stone.	Acids are highly corrosive, requiring personal protective equipment under mandatory OSHA laws; may kill grass and surrounding vegetation.
Sodium Hypochlorite & Calcium Hypochlorite (household and swimming pool bleach)	Will form soluble salts, which will reappear as whitish efflorescence; can cause yellowing; some salts are acidic.	Respiratory irritant; can cause eye injury; strong oxidizer; can decompose to hazardous gasses.
Hydrogen Peroxide	Often causes distinctive reddish discolorations; will etch polished marble and limestone.	Severe skin and eye irritant.
Ammonium Hydroxide	Repeated use may lead to discoloration through precipitation of hydroxides.	Respiratory, skin, and eye irritant.
D/2 Architectural Antimicrobial	No known adverse effects, has been in use for nearly 15 years.	No special precautions required for use, handling, or storage.

Conservation of Historic and Artistic Works (AIC).

- The cleaning of soiled stones in the cemeteries using D/2 Biological Solution may be undertaken by volunteers or the City. This will dramatically improve overall appearance and provide a very visible improvement to the landscape of the two cemeteries.
- Once the cemetery vegetation is under control there are a number of sunken stones that should be reset and this can be accomplished by City crews.
- The few broken stones in the cemetery will require a trained conservator for appropriate repair.

Priorities

A variety of factors affected the maintenance of the cemeteries developed by the Hartsville Colored Cemetery Association and the Mutual Cemetery Association, including black out-flight, aging family members, and the failure to ensure association longevity. As a result during the 1970s and 1980s the 2-acre cemetery reverted to dense scrub and trees. Periodic restoration efforts were too little and likely too late.

Without doubt the one extraordinarily bright spot in this situation is our impression that the City desires to do the best possible job in caring for and preserving these properties.

But, the long-term prognosis for the cemeteries is entirely dependent on the actions taken by the City of Hartsville over the next several years to support and sustain preservation efforts.

Those actions must be carefully formulated and designed to make substantive changes and promote long-term preservation. Most critically, these preservation efforts will require allocations of funds. Likely the allocation will not be great, but funding is required nevertheless.

Recommended Priorities

Many municipalities or caregiver groups seem inexplicably out of touch with the problems facing their cemeteries. While that may be a legitimate criticism in years past, it does not seem to be the case today. City staff is well aware that the cemetery must be cleaned; the question has been how to go about the process. We believe this document provides the detailed ground plans necessary for the recovery of the two African American cemeteries in Hartsville, South Carolina.

It is our professional view, based on the questionnaire responses, considerable research, and one-day on-site, that the five fundamental needs of the cemeteries are:

1. Acquisition of fee-simple ownership that will allow the City to establish appropriate rules and regulations for the benefit and safety of the public.
2. A coordinated plan for the removal of unwanted vegetation, planting new trees, and either mulching or grassing the cemetery.
3. Converting the open ditches to covered culverts. This is critical since the City may no longer use the non-existent "easement" through the cemetery for maintenance purposes.
4. Fencing the cemetery to ensure its protection and posting rules and regulations.
5. Making appropriate repairs to markers and monuments.

But even if there is considerable agreement concerning what needs to be done, it is often difficult to prioritize all of the actions necessary to achieve those goals. It is also easy to become distracted as other problems occur. Assigning a temporary staff to oversee these actions and ensure that the recommendations and specifications provided in this document will help combat some of this distraction since there will be an individual consistently responsible for the restoration of the cemeteries.

Table 5 lists the recommendations offered throughout this assessment, classifying them as a *first priority*, *second priority*, or *third priority*.

First priorities are those we recommend undertaking during the coming fiscal or calendar year (2015) beginning immediately, extending into the winter of 2015-2016 and perhaps into the spring of 2016.

Second priorities are those that should be budgeted for over the next 2 years (2016-2017). They represent urgent issues that, if ignored, will result in not only a noticeable deterioration of the two cemeteries as historic resources, but will also result in the loss of momentum.

Third priorities are those that may be conducted over several following years (2018-2019). They are issues that can wait for appropriations to build up to allow action. Some actions are also less significant undertakings that require other stages to be in place in order to make them feasible or likely to be successful. Although they are given this lower priority they should not be dismissed as trivial or unimportant.

Within these three categories, the individual items are not ranked, as all are essentially equal in importance. Some of course have a natural organization; for example, the cemetery must be cleaned before new trees are planted or cleaned before the surrounding fence is erected.

After 4 to 5 years we recommend re-evaluating what has been achieved, what still needs to be done, and determine how to move forward.

Table 5.
Prioritization of Recommendations

Priority	Action
1st Priority (2015-2016)	<p>1.1 The City of Hartsville should seek means to quiet the title of the two associations to the property and obtain fee simple ownership. This alone will allow the City to establish meaningful rules and regulations regarding the future use of the property.</p> <p>1.2 Caregivers should carefully review the Secretary of Interior Standards, focusing on a fuller understanding of how daily operations may affect the long-term preservation of the cemeteries. Based on this review adjustments should be made to current policies and procedures. A presentation should then be prepared for the City Council.</p> <p>1.3 Vegetation at the cemetery must be brought under control using a four phase approach of first, removing small vegetation; second, selecting the larger trees to remove, pruning the retained trees, mapping stones and depressions, and infilling depressions; third, dealing with intentional plantings that may be found and planting replacement trees; and fourth, either mulching the cemetery or establishing a turf grass.</p> <p>1.4 All removed trees must be cut as close to the ground as possible and treated with herbicide (30% Garlon 4 Ultra in a commercially available basal oil with a marker dye) to prevent suckering. They must be removed from the cemetery and shredded to create mulch. No stumps should be removed or ground.</p> <p>1.5 Care must be taken to avoid removing intentional cemetery plantings. Afterwards these can be assessed for long-term viability.</p> <p>1.6 All work must be done by hand to avoid damage to graves, monuments, or funeral home markers.</p> <p>1.7 All depressions and marked graves should be identified and then mapped by a registered land surveyor. After mapping all grave depressions should be infilled with clean sand.</p> <p>1.8 Larger damaged or unhealthy trees should be removed and treated the same as smaller trees.</p> <p>1.9 Trees to be retained should be assessed and pruned by an ISA Certified Arborist.</p> <p>1.10 Additional trees should be selected and planted in the cemetery to fill in especially barren and open areas. All trees should be mulched by no more than 3-4 inches of mulch out to the drip line.</p> <p>1.11 The cemetery may either be mulched or planted in a grass (except for those areas of natural ground cover, such as English ivy).</p> <p>1.12 An industrial chain link boundary fence should be a high priority once the cemetery is cleared of vegetation. Once erected, the fence should have a preventative maintenance program to ensure its long-term maintenance. This effort, however, can be minimized by installing a high quality fence initially</p>

PRIORITIES

Table 5.
Prioritization of Recommendations, continued

Priority	Action
2nd Priority (2016-2017)	<p>2.1 The City may no longer use the "easement" for maintenance of the open ditches along the north and west sides of the cemetery since no easement actually exists and cemetery property runs to the ditch centerline.</p> <p>2.2 The ditches should be converted to piped ditched or covered drains, eliminating the need for maintenance. This has already been done along the north side of Marion Avenue, which in the 1960s also had open ditches.</p> <p>2.3 Planning must recognize the potential for social trails to be established through a cleaned and accessible cemetery. These paths must be prevented.</p> <p>2.4 The cemetery has been so overgrown for so long that there is no evidence of past vandalism. However, the City of Hartsville should implement an approach to avoid future events. Besides the fencing this includes installation of signage, ensuring the maintenance of lighting, increasing the frequency of police patrols, and encouraging local neighbors to report any evidence of problems on the tract.</p> <p>2.5 The introduction of new memorials must be very carefully monitored and limited. New monuments should be allowed only when the historic monument is no longer legible. In such cases, the original monument must remain and a new flush marker with the precise language of the original marker erected as a flush-to-ground lawn marker. New monuments marking existing graves should also be allowed as replacements for legible funeral home markers. New markers should not be allowed on previously unmarked graves. Previously unmarked graves can be suitably memorialized, at the families' expense, by adding names to a granite marker at the entrance of the cemetery.</p> <p>2.6 The cemeteries require both an identification and regulatory sign placed at the entrance. An example of each has been provided. A sign theme should be developed for the cemeteries using consistent colors and type faces. Informational signage should not be needed.</p> <p>2.7 Once the cemetery vegetation is under control there are a number of sunken stones that should be reset and this can be accomplished by City crews.</p> <p>2.8 The few broken stones in the cemetery will require a trained conservator for appropriate repair. The City must require that all work performed in the cemeteries be conducted or overseen by a trained conservator who subscribes to the Guidelines for Practice and Code of Ethics of the American Institute for Conservation of Historic and Artistic Works (AIC).</p>

Table 5.
Prioritization of Recommendations, continued

Priority	Action
3rd Priority (2018-2019)	3.1 Historic research is not a critical component of preservation efforts, unless there is a desire to place the cemetery on the National Register. Should a National Register nomination be desired, it will be helpful to more fully explore the diversity of individuals buried in the cemetery, as well as the history of the two organizations known to have purchased the property.
	3.2 The City should create several parking spots in close proximity to the cemetery as Lincoln Village is converted into a public space.
	3.3 All future modifications at the cemeteries should be evaluated for their impact on universal access. Universal access should be a goal whenever possible.
	3.4 Future consideration should be given to establishing grass tracks underlain by a reinforcing system to achieve ADA compliance on selected pathways of appropriate widths and road access. Any pathways, however, will require archaeological investigations.
	3.5 The City should not allow the introduction of benches, urns, or vases in the cemeteries.
	3.6 Interpretative signage and/or a brochure may be appropriate.
	3.7 The cleaning of soiled stones in the cemeteries using D/2 Biological Solution may be undertaken by volunteers or the City. This will dramatically improve overall appearance and provide a very visible improvement to the landscape of the two cemeteries.

PRIORITIES

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Cemetery Preservation Plans

Historical Research

**Identification of Grave Locations
and Mapping**

Condition Assessments

Treatment of Stone and Ironwork



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